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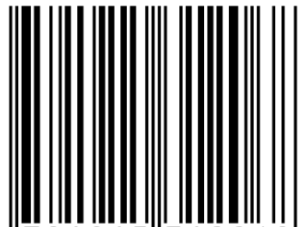
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## **CDA: Qatar World Cup in Newspaper Headlines in the Times and Jutarnji List**

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### **Abstract**

World sports tournaments have diverse economic, political, social, and cultural ramifications. 2022 FIFA World Cup is the first world cup tournament organized in an Arab country, and is described by *The Times* as "the most controversial World Cup of all time". Football has become more than just a sport in many countries, but an integral part of culture and society. The aim of our study is to analyze media representation of FIFA World Cup 2022 in British and Croatian respectable daily newspapers. The corpus is composed of newspaper headlines published in *The Times* and *Jutarnji list* from 01 December to 21 December, 2022. The analytical framework used for the analysis is Fairclough's three-dimensional framework, complemented by Van Dijk's approach to newspaper discourse. At the description level textual analysis is conducted with the focus on sentence predication (passive sentences), at the interpretation level headlines are analyzed from the perspective of modes of discourse representation, and at the explanation level they are analyzed from aspects of societal contexts. Particular prominence is given to newspaper headlines in this study since their function is to indicate the topic, attract readers' attention and evoke particular cultural context. According to van Dijk (1989) headlines express underlying macrostructure, the topical organization of the news discourse. The aim of our study is to apply this critical perspective on selected samples of headlines and determine how news discourses are organized with reference to different social and cultural contexts.

**Keywords:** critical discourse analysis, newspaper headlines, 2022 FIFA World Cup, The Times, Jutarnji list.

### **Introduction**

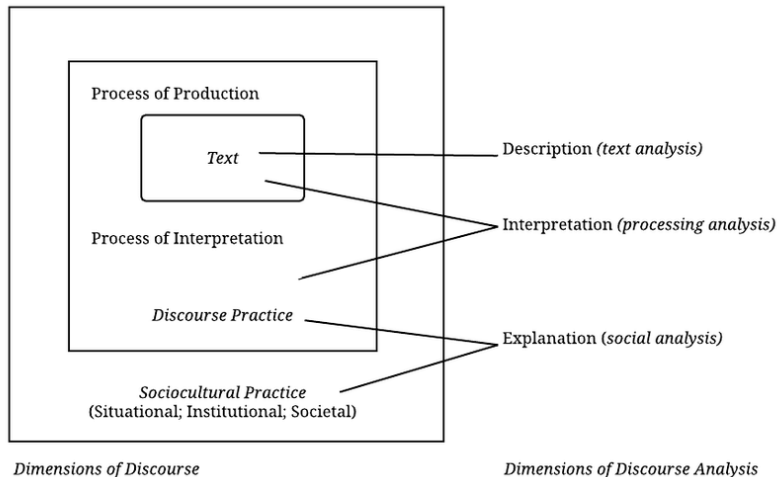
Football has become the most important sport in the world, it has permeated all spheres of people's lives, politics, economy, culture. Mainstream media around the world, including *The Times* and *Jutarnji list*, have reported on the 2022 World Cup

from various angles. *The Times* is a British daily newspaper, one of the greatest newspapers in the country. *Jutarnji list* is a Croatian daily newspaper, one of the most respectable newspapers in Croatia. Both newspapers have reported on the World Cup and focused on various topics, such as football matches and results, match analysis, team managers, players' professional and private lives, referees, football associations, some interesting facts related to the World Cup etc. Media discourse, newspaper articles in particular, have been subjected to analysis from different perspectives in various research. Since critical evaluation of media content has become a priority for many researchers, the approach which has all the necessary methodological tools for such complex analysis is Critical Discourse Analysis. This interdisciplinary approach has been frequently applied to media discourse since it takes into consideration different social factors like ideology, power relations, globalization, etc. and investigates their relationship with discourse. (Peterlicean, Berariu 2020, Ulum 2016). The focus of our research are topics presented in headlines of articles that deal with the 2022 FIFA World Cup. We have conducted thorough analysis of discursive practices of headlines based on Fairclough 's (2010) three-dimensional conception of discourse and van Dijk's (1989) approach to discourse.

### **Theoretical background**

Critical Discourse Analysis (CDA) is an interdisciplinary discipline with very challenging theoretical framework, which has been the focus of attention of many prominent researchers, such as Norman Fairclough (2001), who uses sociocultural approach, Teun van Dijk (1988, 1989), who uses sociocognitive approach, and Ruth Wodak (1996), who adopts sociohistorical approach. According to van Dijk (1988) there are three major aspects of discourse: sentence forms, meanings and speech acts. The author (1988) differentiates levels of textual descriptions with the focus on syntax and semantics. Furthermore, there's a major distinction between micro- and macrolevel of descriptions. Microlevel deals with sounds, words, sentence patterns, and their meanings. Macrolevel, on the other hand, focuses on whole parts of discourse or entire discourses.

According to Fairclough (1995: 24) text analysis is a part of discourse analysis. The following table depicts the method of discourse analysis, which is the most important tool for analyzing different types of discourses.



The three-dimensional conception of discourse (Fairclough, 2010: 133)

The author (2010: 132) sees discourse as a spoken or written language text, then discourse practice, which refers to text production and interpretation, and finally sociocultural practice. This corresponds to three stages of critical discourse analysis: description of text, interpretation of the relationship between the discursive processes and the text, explanation of the relationship between the discursive processes and the social processes.

Van Dijk's approach to media analysis is similar to Fairclough's in their basic tenet that news is primarily analyzed as a type of discourse. Van Dijk (1988) focuses more on structural features of newspaper discourse, which distinguish them from other types of discourse, and on cognitive processing of news, both in their production and understanding. Both authors emphasize the fact that a complete and thorough analysis of discourse involves examining the use of a discourse in relation to social and cultural contexts. In van Dijk's (1989) approach to discourse, cognitive dimension is included as well. Ours is a small-scale research that focuses on topics in headlines, sentence predication (passive sentences), and modes of discourse representation.

### Media discourse

Media discourse in all its complexity can be analyzed from various aspects, semantic, syntactic, stylistic, rhetorical and semiotic. Media discourse should be considered as "the site of quite complex and often contradictory processes" since media function ideologically, and at the same time entertain people, keep them informed about relevant social and political issues, and also reflect and contribute to "shifting cultural values and identities" (Fairclough, 1995: 47-48). Media language has significant power since it represents things in particular ways (Fairclough, 1995: 2). The author claims that analysis of media language is an important part of research on

contemporary processes of social and cultural changes. Within the CDA approach to media language analysis, the focus is on the linguistic and discursive nature of media power. CDA analyzes news texts to discover how social power is linked to language. This approach has brought into focus the fact that newspaper discourse is ideological since it shapes representations of people and events.

## Headlines

Headlines represent a very important part of newspaper articles since their function is to summarize the content of an article and attract readers' attention. The words that are used to communicate the message in a headline frame the story in direct and unavoidable ways (Richardson 48). Halliday (1994) claims that newspaper headlines are a typical example of "little texts" and are often perceived as "a riveting short-cut to the contents of newspapers". According to van Dijk (1989: 103) newspaper articles consist of conventional categories or schematic forms that contain overall or macrostructural meaning of a discourse, and headlines contain a topic or summary of the overall meaning of the text. Topics pertain to macrolevel of discourse description (van Dijk, 1988: 27, 31). "At the global level of semantic analysis, headlines and leads were seen to express underlying macrostructure, the topical organization of the news discourse. It is not surprising to find that newsworthy, powerful actors tend to be prominent also through their occurrence in macropropositions. The same is true for their actions" (van Dijk, 1989). Furthermore, van Dijk (1988) asserts that headlines depict the unity of discourse and are a source of information which is easily memorized by the reader.

## Methodology

This paper makes a thorough analysis of newspaper headlines that report on the 2022 FIFA World Cup, based on Fairclough's three-dimensional framework and van Dijk's approach to news discourse. Headlines selected for the analysis are published in *The Times* and *Jutarnji list* from 01 December to 21 December, 2022. Both newspapers are very respectable, among the highest circulation newspapers in their respective countries. Total number of headlines from *The Times* is 267, and 254 from *Jutarnji list*. Text analysis is organized under four main headings: 'vocabulary', 'grammar', 'cohesion', 'text structure' (Fairclough 1992: 75). This paper focuses on one aspect of grammar, passive sentences, with the aim of determining if there are any differences between American and Croatian newspapers in presenting similar topics in headlines with reference to voice. Action expressed by the verb in a sentence may be structured as an active or passive sentence. In passive, agent introduced with by may not be expressed at all, in which case causality and agency are unclear. Reason for this may be to avoid repeating the agent, if it's already mentioned in the text or to obfuscate agency and causality (Fairclough 1989:124). Active or passive sentences may express prominence of news actors that can be presented as agents or patients (van Dijk 1988). Research conducted by Fowler (1987) showed that those with power, like the

authorities usually appear in first subject position and perform the role of semantic agent, when they perform neutral or positive actions. When negative actions are involved, agents are expressed in passive construction, or they are not expressed at all. Grammatical features as well as all the other aspects of text analysis do not carry any significance in themselves, but have certain functions in relation to their role in reproducing or resisting ideology and social power. At the level of interpretation modes of discourse representation in headlines are analyzed since our study investigates how newspaper discourse is interpreted and produced. They are broadly classified into two types: direct and indirect discourse (Fairclough 1992a: 107). Therefore, our analysis focuses on direct and indirect speech used in headlines. According to van Dijk (1989) "literal quotation may express deference, respect and truthfulness with regard to powerful actors and speakers, but it may also signal distance and doubt when "controversial" actors or speakers are mentioned." According to Fairclough (2010: 132) at the explanation level the relationship between discursive processes and social processes are in focus. Thus, there are a number of levels at which a piece of discourse is embedded in relation to sociocultural practice: the immediate situation, the wider institution or organization, and a societal level. The focus of our study is the analysis of newspaper discourse at a societal level, with particular focus on similarities and differences of discourses in two different sociocultural contexts.

### **Analysis of newspaper headlines in *The Times* and *Jutarnji list* based on CDA**

This paragraph analyzes newspaper headlines reporting on Qatar World Cup based on van Dijk's approach and Fairclough's three-dimensional framework.

#### Van Dijk's approach

Following van Dijk's approach, topics of articles, with the focus on headlines are analyzed. The following table shows the occurrence and the number of World Cup-related topics in headlines from *The Times*.

Table 1 World Cup- related topics in *The Times*

	National topics 101 (37%)	International topics 166 (63%)
Football	55 (54.4%)	80 (48.1%)
Team manager	16 (15.8%)	5 (3%)
Player (professional life)	12 (11.8%)	38 (22.8%)
Fans	7 (6.9%)	13 (7.8%)
Player (private life)	6 (5.9%)	7 (4.2%)
General facts	2 (1.9%)	3 (1.8%)
Referee	1 (0.9%)	3 (1.8%)

Football Association	1 (0.9%)	0
WAGs	1(0.9%)	1 (0.6%)
Politics	0	7 (4.2%)
FIFA	0	5 (3%)
Accidents	0	4 (2.4%)

Topics of the articles are grouped in two major categories: national and international ones. There are 101 (37%) articles that deal with national football- related topics. Furthermore, each of these categories can be subcategorized. Thus, among national topics, 55 (54.4%) articles deal with football, their prevalent focus are football matches, results, match analysis (e.g. How England have become the masters of tournament football), 16 (15.8%) articles focus on the team manager (e.g. Gareth Southgate may be relaxed but he is heading into defining week of his career), 12 (11.8%) deal with players, in relation to their professional life, performance and career (e.g. Jude Bellingham will be the world's best midfielder, says Phil Foden), 7 (6.9%) articles are focused on fans (e.g. 'Lack of alcohol' fuelling England fans' good behaviour at Qatar World Cup), 6 (5.9%) articles deal with different aspects of players' private lives (e.g. The good, the bad, and the ugly- the ultimate England football tattoo quiz). There are 2 (1.9%) articles dealing with some interesting facts about the World Cup (e.g. Robbie Williams defends Qatar concert), 1(0.9%) article dealing with referees (E.g. The referee's a ...terribly mistreated tragic figure), 1 (0.9%) article deals with the football association (e.g. Gareth Southgate: FA hopes players' backing will persuade England manager to stay) and 1 (0.9%) with footballers' wives and girlfriends (e.g. WAGs back on land- and players off the leash at World Cup).

166 (63%) articles deal with various international topics. Among them, 80 (48.1%) focus strictly on football (e.g. World Cup 2022: How Croatia became serial overachievers), 38 (22.8%) articles deal with players' professional lives (e.g. Lionel Messi has nothing left to prove but deserves World Cup coronation), 13 (7.8%) focus on fans (e.g. Qatar World Cup: Morocco fans' party became an organized attack, say French police), 7 (4.2%) articles deal with players' private lives (Moroccan star's mother dances her way into World Cup history), 7 (4.2%) focus on some political aspects of football (e.g. Fifa bans Ukraine president Zelensky's 'appeal for peace' from the World Cup final), 5 (3%) articles focus on team managers (e.g. The Morocco manager who has got his fighters thinking like winners as Spain showdown looms), 5 (3%) articles deal with FIFA (e.g. World Cup: Fifa delivered on promise to grow game in a new part of the world), 4 (2.4%) articles focus on some accidents (e.g. World Cup chief dismisses question about migrant worker's death), 3 (1.8%) articles focus on referees (e.g. Wilton Sampaio could referee the World Cup final as Michael Oliver sent home by Fifa), 3 (1.8%) on some general interesting facts (e.g. Qataris get dream World Cup final – for \$200bn), 1 (0.8%) article deals with footballers' wives and

girlfriends (Where are France’s WAGs? Kylian Mbappe brings his mother and lawyer to World Cup matches).

The following table shows the occurrence and the number of World Cup- related topics in headlines from *Jutarnji list*.

Table 2 World Cup- related topics in *Jutarnji list*

	National topics 164 (62%)	International topics 90 (38%)
Football	59 (35.6%)	38 (42.2%)
Player (professional life)	50 (30.5%)	25 (27.7%)
Fans	26 (15.85%)	3 (3.3%)
Team manager	10 (6%)	8 (8.9%)
Football association	6 (3.6%)	0
Player (private life)	5 (3%)	8 (8.9%)
Interesting facts	5 (3%)	5 (5.6%)
Economy	2 (1.2%)	0
Church	1(0,6%)	0
FIFA	0	2 (2.2%)
Referee	0	1 (1.1%)

164 (62%) articles from *Jutarnji list* deal with national topics. Among them, 59 (35.6%) articles deal with strictly football (e.g. Kraljevi! "Vatreni" će drugi put zaredom igrati u polufinalu. Utakmica je na rasporedu u utorak u 20 sati/ Kings! "Vatreni" will play in the semi-finals for the second time in a row. The match is scheduled for Tuesday at 8 p.m), 50 (30.5%) articles focus on players' professional lives (e.g. Kako je Luka postao vođa/ How Luka became a leader), 26 (15.8%) deal with fans (e.g. Navijači s Kolindom u Dohi pjevali i razvili zastavu dugu 200 metara/ Fans sang with Kolinda in Doha and unfurled a 200-meter-long flag), 10 (6%) articles deal with the team manager (e.g. Dalić je mislilac, čovjek s puno vrijednosti/ Dalić is a thinker, a man with many values), 6 (3.6%) articles deal with the association (e.g. Nova injekcija: "vatreni" priskrbili Savezu još četiri milijuna eura/ A new injection: "Vatreni" provided the Association with another four million euros, 5(3%) articles deal with players' private lives (e.g. Sanjali su...a sada žive svoj san, Sosa je stoječki pisao ispite iz fizike i matematike, Gvardiol je vikendima prodavao ribu, a Livaković i Vrsaljko, kao klinci su se iza zgrade zajedno igrali loptom/ They dreamed... and now they live their dream, Sosa wrote physics and mathematics exams while standing, Guardiola sold fish on weekends, and Livaković and Vrsaljko, as kids, played with the ball together behind the building), 5(3%) deal with some interesting facts about football (e.g.Ma kakve "kockice", ono što mi trebamo brendirati su hvadrati / "Squares" are history, what we need to brand are 'hvadrati'), 2 (1.2%) articles with economy (e.g. Trijumf nogometaša u Kataru diže hrvatski BDP za četiri milijarde



kuna?/ The triumph of football players in Qatar increases Croatian GDP by four billion kuna?), and 1 (0.6%) with church in relation to football (e.g. Fratri za "vatrene", a papa Argentinac, "Kad igraju naši u Kataru, bolje da s nama ne gledate utakmicu. Mogli biste svašta čuti čak i od nas svećenika"/ The friars are for the "vatreni", and the pope is an Argentinian, "When our team plays in Qatar, you'd better not watch the game with us. You could hear all kinds of things even from us priests."

International topics are found in 90 (38%) articles. Among them, 38 (42.2%) deal with football (e.g. Maroko drugi put u povijesti izborio osminu finala/ For the second time in history Morocco reached the World Cup's final eight), 25 articles focus on players' professional lives (27.7%) (e.g. Mnogi ga mrze, većina mu se divi, ali ponovno igra sjajan nogomet/ Many hate him, most admire him, but he is playing great football again), 8 (8.9%) articles deal with team managers (e.g. Van Gaal podnio ostavku, naslijedit će ga Koeman?/ Van Gaal resigned, will Koeman succeed him?), 8 (8.9%) articles focus on players' private lives (e.g. Gue-sung Cho ne može spavati zbog rasta popularnosti/ Gue-sung Cho can't sleep because of his rising popularity, 5 (5.6%) on some interesting facts related to football (e.g. Nogomet se ne vraća u Englesku, ali se zato vraća mačak Dave/ Football isn't coming back to England, but the cat Dave is), 3 (3.3%) articles deal with fans (e.g. U navijačkim neredima u Francuskoj uhićeno 167 osoba/ 167 people arrested in fan riots in France), 2 (2.2%) with FIFA (e.g. FIFA predstavila Al Hilm, novu loptu za utakmice polufinala i finala/ FIFA presented Al Hilm, a new ball for semi-final and final matches), and 1 (1.1%) with a referee (e.g. U sjeni loših sudaca, Posljednji Messijev SP želimo pamtiti po majstorijama/ In the shadow of bad judges, We want to remember Messi's last World Cup for his mastery).

### Description of newspaper headlines

At the level of description textual analysis of headlines is conducted. Linguistic features of headlines are examined through analysis of passive voice used in selected headlines. The following table shows the occurrence of passive structures in selected headlines from *The Times* and *Jutarnji list*.

Table 5. Passive structures in headlines in *The Times* and *Jutarnji list*

	The Times	Jutarnji list
Passive structures	27 (10%)	7 (2%)

There are 27 (10%) instances of passive structures in selected headlines from *The Times*, and 7 (2%) in headlines from *Jutarnji list*.

Out of 27 examples of passive structures, 13 have agents expressed with *by* (e.g. Last dance for Brazil as they are stunned by Croatia in shoot-out). 14 passive structures do not have semantic agents expressed with *by*. Out of these 14 examples, the agent is known from the context in 11 passive structures (e.g. England vs France: Kylian Mbappé is tamed, but this hurt). Agent is unknown only in 3 passive sentences (e.g.

Macron mocked for World Cup speech to defeated French players). There are just 7 (2%) instances of passive structures in *Jutarnji list*. There is no agent expressed in any of these structures, but it is known from the context in all these examples (e.g. U navijačkim neredima u Francuskoj uhićeno 167 osoba/ 167 people arrested in fan riots in France)

### Interpretation of newspaper headlines

In the second stage of Fairclough's framework, reporting modes of discourse representation are analyzed. Since newspaper articles express what people have said, reproduce their opinions and comments, they contain various examples of direct and indirect quotations. These are also found in headlines. Direct speech refers to the speaker's exact words included in text with quotation marks. Indirect speech reports the speaker's words without directly quoting them, thus indirect discourse is realized by a subordinate clause. The proportion of direct and indirect speech found in selected headlines from *The Times* and *Jutarnji list* is presented in the table below.

Table 6. Direct speech in *The Times* and *Jutarnji list*

	The Times	Jutarnji list
Direct speech	22 (8%)	68% (27%)
Indirect speech	9 (3%)	0

There are 22 (8%) instances of direct speech and 9 (3%) instances of indirect speech in *The Times*. There are 68 (27%) instances of direct speech in *Jutarnji list*. There are no examples of indirect speech. Specific feature of headlines in newspaper discourse is that quotation marks are frequently omitted in the examples of direct speech. The following examples of direct and indirect speech are from *The Times*:

Gareth Southgate: Why do I stay sitting down? Because I trust my England players

England World Cup star Jordan Pickford had it all aged 17, says Scotland hero Craig Gordon

The following examples of direct speech are from *Jutarnji list*:

Zlatko Dalić: Protiv Kanade smo digli letvicu i kriterije. Brine me samo što je ovo "biti ili ne biti" (Zlatko Dalić: We raised the bar and criteria against Canada. I only worry about the fact that this is "to be or not to be")

Branko Strupar: Emile Mpenza i ja komunicirali smo osmijesima! (Branko Strupar: Emile Mpenza and I communicated with smiles!

### Explanation stage

This paragraph deals with the analysis of social determinants of discourse considering societal contexts.

## Societal Context

According to recent research the UK is ranked as the world's 'global power', the second most powerful country in the world according to its economic, political, scientific and cultural influence (UK Defence Journal). Football in the UK has an enormous impact, it's more than a way of life, and an integral part of the UK culture and history. Its popularity has lasted for centuries. Since it was invented by the English in 1170, who established the rules of the modern game, it can be said that it's England's national sport. The Football Association was created in 1863. England has more than 40,000 registered football clubs, the biggest ones are in the Premier League. Furthermore, it's one of the biggest sources of income since the Premier League attracts tourists from all over the world (GB Mag). Football is an internationalized sport, it connects people of different socio- economic backgrounds. In Croatia football is also the most popular sport. The Republic of Croatia is a small European country that gained independence in 1991. Rich history of the Croatian Football Association started in 1912 (HNS-cff). Development of football in Croatia is closely intertwined with the political situation (Lalić, 2018). From the very beginnings of its independence football had a very important role in promoting the country and its people (Sipus 11). In Croatia, just like in England, football has permeated all spheres of people's lives, it has become a part of cultural heritage, Croatian identity has been formed through football. All this shows that football plays a major role in Croatian people's lives. Croatia's national football team played a major role in international football, they announced a new era of world football (Doyle 1). The team achieved enviable results by finishing second in the FIFA World Cup in 2018, and third in 1998 and 2022. It was during the 1998 FIFA World Cup that the whole world learned about Croatia.

Both newspapers deal with similar topics in relation to the World Cup. The most conspicuous difference is in the proportion of national vs. international topics. Thus, the proportion of national topics in *The Times* is 37%, and of international topics 67%. On the other hand, in *Jutarnji list* the numbers are almost exactly the opposite, 62% deal with national topics, and 38% with international ones. An important feature of CDA is that media discourse reflects cultural values and identities, and our results confirm that. The UK has a longer and richer history of football than Croatia. Moreover, football was invented by the English. Therefore, it's not surprising that their interest extends beyond national topics, so more articles are dedicated to international World Cup- related topics. On the other hand, Croatia is a much smaller country that gained its independence 32 years ago, and Croatian identity has been created through football. This is reflected in the higher number of articles that deal with national World Cup- related topics. For such a small country, with quite modest sources of financing sports in general, in comparison to many other bigger countries, it's been an enormous success to finish second and third in previous World Cups. Consequently, national fervor, identity and enormous pride are intertwined with

football. For this reason, the team manager and players are generally held in enviable respect by people in our country. This is also reflected in the number of the examples of reported speech in *Jutarnji list*. 27% of all headlines are instances of reported speech, mostly quotations of what current and former respectable national team players, and the team manager have said. People in Croatia generally feel enormous pride because of our team's success, therefore players and the team manager are always in focus of attention, which is reflected in newspaper discourse as well.

## Discussion and conclusion

This paper focuses on the differences and similarities between newspaper discourses that are framed in two different socio-cultural contexts. A critical discourse analysis is conducted through Fairclough's three stages of description, interpretation and explanation, complemented by Van Dijk's approach to news discourse. The results of our analysis have revealed certain differences as well as similarities between the two newspapers. Both the UK and Croatia can be described as football nations whose identity and emotions are closely linked to football. This is also reflected in the number of articles dealing with the 2022 World Cup in selected newspapers, there is an insignificant difference between them in the total number, 267 in *The Times* and 254 in *Jutarnji list*. Overall analysis of topics related to football has revealed some interesting findings. The most noticeable difference between the two newspapers is in the proportion of national and international topics. The proportion of national topics in *The Times* is 37%, and in *Jutarnji list* 62%. International topics are found in 63% of headlines in *The Times*, and 38% in *Jutarnji list*. These 2 categories have been further divided into topics that deal with football matches and results, players' professional and private lives, fans, some general facts about the World Cup, football association, WAGs, politics, FIFA, accidents. There are some differences in proportion of these topics in *The Times* among national and international categories. Thus, the three most frequent topics among national categories are the ones related strictly to football (54.4%), to the team manager (15.8%) and players' professional lives (11.8%). Among international topics, the three most frequent ones are related to football (48.1%), players' professional lives (22.8%), and fans (7.8%). We can conclude that *The Times* focus more on their national team manager than on foreign ones, and also shows considerable interest in foreign players' professional lives. Other topics are not so frequently present in the selected sample of articles in both categories.

Among national topics in *Jutarnji list* the three most frequent ones are related to football in general (35.6%), players' professional lives (30.5%) and fans (15.85%). Among international topics the three most frequent ones are related to football (41.1%), players' professional lives (27.7%), team managers and players' private lives (both 8.8%). We can conclude that fans in Croatia are, besides football in general and players, frequently represented in newspaper articles, their opinion and comments also tend to be included in headlines. At the description level, passive structures have

been analyzed. There are 10% of passive sentence forms in *The Times*, and only 2 % in *Jutarnji list*. Out of 27 examples of passive structures in *The Times*, agent is unknown only in 3 examples, and in other examples it's known either from the context, or it is introduced with by. In all the Croatian examples agent is known from the context. We can conclude that in both newspapers passive structures are not used with the aim to obfuscate agency or causality, but simply to put semantic patients in focus. At the interpretation stage results of our analysis show that there is a considerable difference between *The Times* and *Jutarnji list* in the instances of direct and indirect speech used in headlines. The proportion of direct speech in *Jutarnji list* is 27%, and 8% in *The Times*. Indirect speech is not found in *Jutarnji list*, there are 9 (3%) examples in *The Times*. The examples mostly refer to what Croatian professional players have said, then the team manager's words and opinion, fans' words are also quoted. Football players and the team manager are generally highly respected in Croatia, and this is reflected in news discourse, both through topics and examples of direct quotations. They are very powerful in the domain of football, thus represent relevant sources of information, consequently a high degree of truthfulness is achieved which can also attract more readers' attention. Newsworthy and powerful actors, like the team manager and team players are also quite frequently represented in *The Times*, but more through journalists' words, as topics of articles, rather than with direct discourse. We can conclude that two newspaper discourses reflect cultural values and identities of their respective countries, as well as shape representations of a major football event, and at the same time entertain people and keep them well informed.

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## **Experiences of Juvenile offender learners in teaching and learning support in the correctional schools: a wellness perspective**

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### **Abstract**

The study explores selected South African correctional school Juvenile offender learners' experiences regarding the support received for improving teaching and learning and wellness. The study uses qualitative interpretive approach; open-ended questionnaire involving 21 juvenile offender learners was utilized to collect data. The theoretical framework applied in the study is Ubuntu and Wellness. Ethical measures were considered before and during the study. Findings revealed that teachers use various forms of teaching and learning in order to support juvenile offender learners in the correctional schools. In addition, security official, teachers, and peers collaborate with various stakeholders to improve the wellness juvenile offender learners. The teaching and learning support meet the needs of intellectual, social, physical, emotional, spiritual and career/ occupational of juvenile offender learners. It also addresses barriers to learning, create favourable learning environment, enhance their wellness and improve their academic performances.

**Keywords:** juvenile offender learners, learning support, social, physical, emotional, career, spiritual, intellectual wellness, Ubuntu, correctional schools

### **Introduction**

The Department of Correctional Services in South Africa has correctional centre schools across the country which houses offenders that have increased from an average of 153000 during 2013 to 161054 by 2017 (Department of Correctional Services, 2017). In these correctional centres, 25% of the inmates are juvenile offenders. According to Badenhorst (2011) and Zenzile (2008), juvenile offenders are children who break the rules or children in conflict with the law. The Department of Correctional Services (DCS) identifies offenders of ages between 14 and 24 years as juvenile offenders (Department of Correctional Services, 2009). Moreover, the Department of Correctional Services (2009), offers education to juvenile offenders with the aim of rehabilitation. Rehabilitation encompasses a planned intervention in the form of learning and teaching, which aims to transform the juvenile offender learners' criminality behaviour and avoid recidivism (Schmallegger & Smykla, 2009;

Frantz, 2017). The criminality behaviour includes aspects such as attitudes, intellectual process, personality, morals, or human values and wellness (Department of Correctional Services, 2009).

## **Background**

Currently, the Minister of the Correctional Services in South Africa has announced that the role of correctional services is to collaborate with the institution of higher learning to support in developing meaningful learning programmes (DCS, 2018). There should be a scientifically proven risk assessment tool that is offence specific, which would effectively support learning and rehabilitate juvenile offenders. Hence, supporting them with education and skills to survive in the outside world and reduce the level of recidivism. He is following in the footsteps of the former Minister of Correctional Services Sibusiso Ndebele, who announced that primary education has to be compulsory for all offenders in the correctional centre (DCS, 2009). Since then, the DCS has increased the number of permanent correctional schools from one to 14 since from 2009 to 2014 (Davis, 2015).

The correctional school is a set of learning meant for juvenile offenders incarcerated in the correctional centre. The learning includes education in its broad sense to physical education and sports, social education, spiritual activities, cultural activities, vocational education, academic subjects as well as library services (Lobuglio, 2009). Currently, the correctional schools in South Africa offers education in different phases such as general AET level 1 to 4, Further Education and Training (FET) in Grade 10-12, and N1-N3 (Department of Correctional Services, 2017).

According to Costelloe and Langelid (2011), juvenile offender learners face institutional and situational barriers imposed by their confinement. Despite the type or quality of education and training on offer in the correctional school, the juvenile offender learners encounter situational barriers that are of external factors, which are often beyond their control. such as correctional centre systems (Scurrah, 2010). The institutional barriers are the practices and procedures of the institution that prevent or discourage juvenile offenders from participating in education (Francis, 2010). For example, this might involve dealing with application processes of appeal by juvenile offender learners (Braggins & Talbot, 2006). Because of these situational and institutional barriers, juvenile offender learners have little personal power to change the organisation and have very little self-sufficiency. As a result, they are reliant on the system to provide for all their needs and learning support (Scurrah, 2010). For this reason, the support of learning and improvement of wellness for juvenile offender learners must be inclusive in the correctional centre school. This study had intended to explore and determine the experiences of learning support of juvenile offender learners in the correctional centres.

Within the correctional education setting, support involves assistance, strength, help or encouragement rendered to juvenile offender learners to improve teaching and



learning. Moreover, support implies to empower them to learn optimally, realise their potential of being rehabilitated, and enhance wellness (Dzulkifli & Yasin, 2010). Support may come from different sources such as family, friends, teachers, community, or any social groups directed to developing supportive learning environments, eradication of learning barriers and improving quality and effectiveness of teaching activities. Support can come in the form of intangible assistance provided by others when needed which includes the appraisal of different situations, effective coping strategies and emotional support (Friedlander, Reid, Shupak, & Cribbie, 2007). For this study, education support structures and services directed to juvenile learners are referred to as learning support.

Mangena (2016) asserts that to ensure successful learning support, correctional schools have to collaborate with various support structures to support juvenile learners holistically to improve the quality of learning and wellness. Etieyibo (2014), also reiterates that collaboration in learning support promotes social cohesion between juvenile learners, the schools and the community members at large (Etieyibo, 2014). Hence, correctional schools, the teachers, communities and all other stakeholders can put their resources together to help and support juvenile learners to learn, rehabilitate, and promote their wellness (Boderick, 2015; Mulaudzi, 2014). To provide learning support for teaching and learning is an essential strategy for the correctional schools to recognise and address several learning barriers; and creating a conducive environment for effective teaching that enhance juvenile learners' academic performance, social, emotional, spiritual, physical and career wellness (Moore & Mokhele, 2017).

Research conducted in correctional schools by Magano (2015), revealed that adequate support for teaching and learning could indirectly enhance the wellness of juvenile learners. Wellness is defined as an active process through which people become aware of, and make choices toward a more successful existence (Hettler, 1984). The wellness model consists of six-dimensions, namely, physical, emotional, spiritual, social, occupational, and intellectual wellness. Providing learning support to juvenile offender learners is crucial since it has a link to academic achievement, promote wellness, rehabilitate, and avoid recidivism. For this reason, teachers, security officers, correctional management, families, and community, collectively support juvenile offender learners through teaching and learning has a wide range of benefits in enhancing six-wellness dimension.

### **Problem statement**

The majority of research has been conducted on various topics on juvenile education. However, juvenile offender learners' experiences of learning support and enhancement of wellness in the correctional schools are minimal. Although juvenile offender learners are a commonly studied issue, researchers have not fully paid attention to the degree to which challenges did the juvenile learners' experience in

accessing and utilising the support structure services they were offered. Hence, learning support and wellness achievement of a juvenile offender learner occurs within the constructed environment of a learner (Hollingsworth, 2009).

However, little is explored about the forms of learning support were received by juvenile offender learners in the correctional schools. Minimal documentation about the extent of support structures available or needed to improve the quality of learning and wellness in the environment of confinement. This study hopes to link the gap. Hence, the discussion led to the following research question of the study:

The study addressed the following Research Questions:

What are the Juvenile offender learners' experiences of learning support and enhancement of wellness in selected South African correctional schools?

What were forms of learning support received by juvenile offender learners in correctional schools?

What challenges did the juvenile offender learners experience in accessing and utilising the support structure services they were offered?

What is any other additional learning support did the juvenile learners indicated as needed to improve their wellness and quality of learning?

### **Theoretical framework**

The theoretical framework guided the study integrated Ubuntu and wellness as a lens. The wellness model developed by Hettler (1980) defines wellness as a continuous, lifelong process of striving towards the realisation of one's full potential, more successful existence and enhances quality life. The wellness model consists of six dimensions, namely, intellectual, emotional, physical, social, spiritual, and career wellness. These six dimensions of wellness intertwine and influence each other. For this study, the researcher focused on intellectual wellness as a lens to explore the juvenile offender learners' experiences of learning support in selected South African correctional schools. Intellectual wellness, as defined by Hettler (1980), encourages creativity, stimulates mental activities, and extends critical thinking of the juvenile learner. It promotes lifelong learning, the use of resources available within the correctional centre to expand knowledge, improving skills, focus on the achievement, development, application and potential for sharing knowledge with others beyond the classroom and the community at larger (Hettler, 1980). The model assisted the researcher in getting a deeper understanding of the context of learning support in the correctional schools and enhancement of their wellness.

The researcher also used an African lens of Ubuntu in exploring how teachers and other stakeholders collaborate and offer services of learning support to juvenile offender learners in correctional schools. Ubuntu is an African philosophy that emphasises 'being human through other people'. It is a way of life and impacts on

every aspect of people's wellbeing. It highlights the principle of collaboration, solidarity and teamwork with different stakeholders' such as parents, correctional centre teachers, social workers, psychologist, pastors, and community businesses to support juvenile offender learners' learning and enhance wellness (Gyekye, 2002). For this reason, the lens was appropriate in ensuring that the researcher explores learning support experienced and received by juvenile offender learners in the correctional schools.

### **Research design**

The study adopted a qualitative approach that facilitated an exploratory study to gain insight into the participants' experiences and understanding of the phenomenon investigated (Creswell, 2007). The study explored the Juvenile offender learners' experiences of learning support in selected South African correctional schools. The qualitative approach helped the researchers to describe and interpret participants' experiences, actions and events of data rather than assuming or controlling the data (Merriam, 2002). It allowed the participants to speak for themselves and maximise what could be learnt. This is supported by Henning, Van Rensburg and Smit (2004). They state that qualitative research focuses strongly on the meaning and significance of the processes that occur in their natural setting as well as their outcomes. This qualitative approach was flexible in data collection because it allowed the researcher to be directly in the process by observing and recording events as they occurred in their natural setting (Creswell, 2007).

### **Sampling**

Sampling was purposive since only juvenile offender learners in AET level four in the correctional schools participated in the study. The researcher purposively sampled participants and settings for this study that increases understanding of the phenomenon (Onwuegbuzie & Leech, 2007). This sampling is supported by Henning et al. (2004) and Denzin and Lincoln (2005). They concur that purposive sampling assumes that the researcher knows and informed about the participants suitable for the study. Participants were 21 juvenile offender learners doing AET Level 4 from the seven correctional schools selected on availability bases. The 21 participants (three from each school) aged 18 to 24 years from AET Level 4 who were attending classes, volunteered to participate and were ideal for the study. The selected correctional schools are from the four provinces in South Africa, namely: Kwazulu-Natal, Western Cape, Gauteng Province and Orange Free State Province. This distribution was also influenced by the nature of the correctional centres that contain fully-fledged schools with juvenile offender learners attending to the teaching and learning process on a full-time basis.

## **Instrument**

The researcher developed an open-ended questionnaire as a research instrument for data collection. The participants preferred to write their answers confidentially not to participate in interviews. The questions covered by the open-ended questionnaire were aspects such as experiences of learning in the correctional centre, the subject mostly enjoyed, learning support, wellness, academic performance, challenges experienced and other aspects that can be added to support learning. All questions were open-ended and required the participants to elaborate on their answers.

## **Data collection**

Data collection is a process of collecting information from the participants for gathering in-depth information to substantiate the research purpose and objectives (Henning et al., 2004). The study collected qualitative data on personal experiences of juvenile offender learners regarding learning support received and utilised for improving their quality of learning and enhance their wellness. Open-ended questionnaires were utilised in the data gathering process since participants were not comfortable with interviews but preferred to complete questionnaires. No name was written on the questionnaires, for ethics purposes, anonymous. Topics related to learning support and wellness of juvenile offender learners in the correctional schools was addressed. The open-ended questionnaires were conducted in English, and clarified in their language where clarity was requested. Juvenile offender learners answered questions during free periods of approximately 45 minutes.

Prior to data collection, ethical measures were considered. Ethical clearance was obtained from the University of South Africa research ethics committee. Furthermore, permission to conduct the study in the correctional schools was obtained from the Department of Correctional Services (DCS), and the seven principals of schools selected for the study. Before the distribution of the questionnaires, participants were provided with written information and explanation about the purpose of the study and its intention. The ethical principles of assurance of confidentiality, the anonymity of participants, voluntarily participation, informed consent and permission to withdraw at any stage of the study were explained. All the volunteered participants completed their questionnaires, and the researcher collected them.

## **Analysis of data**

Analysis of Data collected from the open-ended questionnaires; the researcher utilised steps recommended by Creswell (2007). He suggested multiple reading and reviewing of data to facilitate the initial interpretation of participants' responses. Then the researcher transcribed the data manually, wrote notes on the margins, and got the sense of what participants said. Then followed by colour coding, organising information into units, and categorised all the meanings, which were similar and

grouped them. After that, categories were further collapsed into similar meaning, and the following themes emerged:

Correctional schools proffer services to learning support and wellness availability of support structures to address the learning support and enhance wellness Peer support challenges experienced by participants in accessing and utilising the learning support additional learning support participants wish to receive

## **Results**

The results of data analysis are presented below in terms of the themes that emerged, with supporting quotations from the open-ended questionnaires of juvenile offender learner.

### **Correctional schools proffer services to learning support and wellness**

Data analysis revealed that the correctional schools, security personnel, peer learners, teachers and various stakeholders make an effort to offer learning support to juvenile offender learners. The participants reported that the learning support received at the correctional schools meet their intellectual, social, emotional, physical, spiritual and career wellness.

The correctional centre, security personnel, and teachers collaborate with various stakeholders to support learning and enhancing the wellness of juvenile learners. Participants mentioned that the correctional centre invites their families, community members and motivational speakers to support learning and promote their wellness. Findings revealed that participants are encouraged to read, and write poems, short stories, and drawings, participate in sports activities. Besides, they indicated that to improve and sustain their mental health to achieve and succeed in learning, the correctional centre refers them to social workers and psychological service for assessment on social issues and emotional challenges.

*KZN=D/JLP 9: "SRAC weekly programme we have physical exercises on Fridays it is sports day open field.*

*KZN=C/JLP 7: "We also have NGO Khulisa it rehabilitate offenders from using drugs, behave well, religion and how to deal with anger issues."*

*GP=F/JLP 16: "We have very good physical exercise because of SRAC."*

*GP=E/JLP 14: "Available Support that promotes spiritual wellness is the invited Pastors and spiritual care."*

*WC=A/JLP 3: "We do have outside people who help."*

*FS=G/JLP 19: "We get outside business people to motivate us."*

*E/PT 8: "Educators and external services providers help in this regard."*

## **Challenges experienced by participants in accessing and utilising the learning support**

From the findings, participants explained that they experience challenges that hinder ample support for learning and enhancement of wellness. For addressing intellectual wellness, they mention the following as challenges experienced: inadequate and erratic time for class attendance and accessing libraries, shortage of security personnel and teachers, English language as learning barrier, violence that disrupts classes, unfavourable learning environment and lack of learning and teaching materials.

Excerpt from the transcript on learning support for addressing intellectual wellness were:

*GP=E/JLP 15: "We do not attend every day. Sometimes teachers are not available; sometimes there are fights at school we are suspended from school."*

*GP=E/JLP 13: "We attend school sometimes two weeks or a month in a term."*

*FS=G/JLP21: "Start from 9 am to 11h30 Sometimes section is closed up early, and we have to leave school for lunch early."*

*FS=G/JLP 20: "Textbooks are not available."*

*GP=F/JLP 17: "Sometimes, I do not attend because of a workshop with the social worker."*

*WC=B/JLP4: "I attend three times a week, and the other days are for the social worker."*

*KZN=C/JLP 9: "We do not write tests during the year, but we write final November exams, but we get no reports that de-motivate me. I do not perform well in English because we do not have a teacher. We have no teachers we are taught by tutors or other offenders I would like to perform well on maths because I like it."*

Findings revealed other challenges that encumber the accomplishment of learning and physical wellness as follows: Substances are not allowed, but some juvenile offender learners to smuggle substance to the correctional schools and use in the cell section.

*FS=G/JLP 19: "I like to use tobacco, I do not go playground. I like church and school work only."*

*WC=B/JLP2: "I smoke, but I hide it only does it freely at the section".*

*WC=A/JLP2: "we almost all smoke here only a few do not smoke some sell cigarettes."*

Participants indicated challenges experience that hinders learning support and career wellness such as lack of skills or training to compete for work when released back to

society. For this reason, it might lead them to engage in criminal activities when released back to the community.

*FS=G/JLP 19: "Nothing, I learn nothing for a career; I do not know skills for creating a business, but there is a training centre for medium B juvenile offender learners".*

*KZN=D/JLP 11: "None skills to compete for employment after release".*

*GP=F/JLP 17: "SMME learning about running a business its only theory no practical but nothing training."*

Spiritual and emotional instability is a challenge; participants indicated that they feel undermined by gangsters; they end up taking their frustration on wrong people. They lack comfort and feel hopeless due to long sentences.

*KZN=D/JLP 10: "Feeling depressed sometimes by the other gangs, like taking frustration on wrong people, I want someone to talk to about how I feel."*

*WC=B/JLP 5: "I am encouraged to go pray but do not believe it no hope I have a long sentence here no change".*

The responses above show that juvenile offender learners lack spiritual and emotional support; it might cause resistance to change, feelings of hopelessness, self-centredness, spiritual conflicts with others and self of which it can exacerbate anxiety, anger, and depression of the juvenile offender learners.

### **Peer support**

Findings revealed that participants receive support from fellow juvenile learners in the correctional schools and the cell sections. The learning support meets their emotional, intellectual, social, spiritual and occupational wellness. The kind of support from peer learners focuses on advice, encouragement, information and motivating each other. Peer support that addresses intellectual wellness includes study groups, peer tutors when in class, assistance from peer mentoring in cell sections.

*GP=E/JLP 15: "... taught by tutors or other senior offenders.*

*KZN=D/JLP5: "When we have no teachers, we are taught by tutors or other offenders."*

*WC=B/JLP 6: "To be one society helps when I do not understand in class, I ask my friends, and when other people provoke me, my friends help me. It is tough here without friends."*

*GP=E/JLP 14: "my friends help and show me to write a correct CV and set goals and plan for a better life when I am released."*

Peer support that addresses emotional and social wellness includes sharing information and assisting each other on personal needs.

*GP=F/JLP 16: "our relationships with a peer are good, and we help each other very well."*

*KZN=C/JLP9: "I respect others so that can respect me. I respect them because they help me with other things.*

*KZN=D/JLP 12: "... I open up to my friends when I have problems. In my conflicts, I tell someone to help."*

*WC=B/JLP5: "Social support protects me from being bullied and gangsters here. I ask my friends to help me when I face problems in class."*

*WC=A/JLP3: "Support provided by friend assists me to cope with stress in various situations I face here in the centre."*

Support from the peer to address physical and spiritual wellness, participants mentioned that they motivate each other not to use substances, encouragement to eat healthy meal and exercise always. In addition, they support by singing melodious songs together, inspire each other through inspirational messages that give hope, comfort and spiritual uplift, and that help them to cope eventually improve their learning.

*GP=F/JLP 17: "I play sports and exercise with my buddies. We eat healthy, three meals, and vegetable soup. No substances are used."*

*WC=A/JLP 3: "Singing heals me sometimes we sing with my cellmates in the section, I always feel inspired, have hope and better."*

### **Support structures to address the learning support and enhance wellness**

Results of the study from the seven correctional schools revealed similar responses to their support structures that enhance learning and wellness. Lack of support structure is one of the factors that impede the effectiveness of learning and promoting wellness of juvenile offender learners. However, in this study, findings discovered that available learning support structures include the support from a psychologist, social workers, doctors, and or Non-Governmental Organisations to enhance intellectual, physical, social, emotional, spiritual and occupational/career wellness. The findings revealed that the support structure to strengthen intellectual wellness of juvenile offender learners in the seven schools in the Department of Basic Education in providing them with curriculum (CAPS) document, Annual Teaching Plan (ATP) and assessment of final examinations for AET level 4.

*WC=B/JPL6: "end of the year, I am going to write my final exam externally from the department of education."*

*WC=A/JPL2: "I have registered with the department of education for level 4 if I pass my exams, I get a certificate."*

*KZN=C/JLP 14: "I have joined book club reading for fun and competitions."*



The results showed that the Department of Correctional Services (DCS) provides support for effective learning by escort juvenile learners from the cell section to the classrooms. The DCS create a productive and conducive learning environment by assigning security officers to maintain order and discipline when learners attend classes.

GP=E/JPL9: *“warden safeguard, keep order and discipline while we are learning during lessons in class.”*

Participants mentioned the support structures for meeting social, emotional, physical, occupational/career, spiritual wellness, received in various forms improves their learning, understanding of subjects, motivate, up-lift their spirits, improve their self-esteem, make them work harder, assist in preparing them for examination and in achieving better results. Excerpts from the collected data on learning support were as follows:

GP=F/JLP 17: *“...support from Social worker and psychologist they help us a lot.”*

GP=F/JLP 18: *“Psychologist helps me when I have mental problems.”*

FS=G/JLP 20: *“My relationship with family is well; only mother and little brother they keep on visiting me.”*

FS=G/JLP 20: *“Support structures are teachers, Social workers and other people outside.”*

GP=F/JLP 17: *“SRAC helps in playing sports and exercise ... has enough equipment for soccer. When we need soccer balls and boots, Mark Fish supports us.”*

GP=F/JLP 18: *“Support structures that promote physical wellness are celebrity players from outside come to play with us here.”*

FS=G/JLP 21: *“... Nurses come to check and give me treatment for TB and HIV every time.”*

WC=B/JLP5: *“Entrepreneurs and Business owners from the communities come to motivate us about the importance of starting our own business when we released back to the community.”*

GP=E/JLP 15: *“I attended Anger Management courses for seven days from the NGO.”*

WC=A/JLP2: *“Now and then pastors come here to preach, pray and teach us to meditate so that we cope and release anger, learn to ask forgiveness from others and respect people.”*

### **Additional support participants wish to receive**

From the seven schools, findings indicated that participants wish to receive adequate learning support to improve their teaching and learning and enhance the intellectual,

physical, social, spiritual, emotional, and career wellness. Additional support they wish to receive includes enough supply of learning and teaching material, extra time for learning in schools and accessing libraries, feedback from their examinations regularly. Moreover, to deal with physical wellness, they wish to have enough guards to escort them to the sports field, extra sports activities and coaches. Besides, they wish to receive more spiritual services and social workers to address their social needs and more time for consulting psychologist to address their emotional, personal needs and problems. To improve learning support on career wellness, they mentioned the wish to receive more lessons on practical or hands-on lessons than theory. They need practical training on skills such as electrician, building or carpentry, and assistance in learning to start their own business after their release.

GP=F/JLP 18: *"We need textbooks and stationery because it is difficult without."*

FS=G/JLP 20: *"I want resources to support learning such as calculators, textbooks for maths,"*

WC=B/JPL5: *"I could pass if I had textbooks for my subjects."*

GP=F/JLP 18: *"... I ask extra time from teachers and correctional management to do the activity in class."*

WC=A/JLP 1: *"I have many activities to write, but I fail to finish in class, so I want extra time at school."*

GP=E/JLP 15: *"We don't write tests during the year, but we write final November exams, but we get no reports that de-motivate me. I wish to get my report every quarter."*

GP=F/JLP 17: *"I want to pray more, meditate and singing songs for comfort and read uplifting spiritual verses for inspiration."*

KZN=D/JLP 12: *"I want to have building or carpentry or electrician courses."*

WC=A/JLP 2: *"I know to write my CV, but I don't have work experience or training to work. I want to be electrician; I will train when I pass level 4".*

GP=E/JLP 13: *"I want to do engineering and to have a licence for a job I want to learn a new skill so that I can look for employment after release."*

GP=E/JLP 14: *"I want to learn a skill of starting a business because I want to do business at home; my dream is to open my company one day."*

From the responses above indicated, even though there is learning support in the correctional schools, the participants wish to receive adequate learning support to improve their learning and enhance wellness.

## Discussions

The study explored the juvenile learners' experiences of receiving and utilising the support to improve their learning and enhance wellness. The findings confirmed that Correctional schools proffer services to learning support and improve wellness. Although the focus was on the support of teaching and learning, other wellness dimensions were indirectly addressed. The forms of support facilitated active learning and met juvenile learners' intellectual, social, emotional, spiritual, physical and career wellness. These forms of learning support addressed barriers to learning, enhanced learners' self-esteem and consequently improved their academic performance and social relations. The study adopted Intellectual wellness and Ubuntu. Intellectual wellness, as defined by Hettler (1980), encourages creativity, stimulates mental activities, and extends critical thinking of the juvenile learner. It promotes lifelong learning, the use of resources available within the correctional centre to expand knowledge, improving skills, focus on the achievement, development, application and potential for sharing knowledge with others beyond the classroom and the community at larger (Hettler, 1980). While, Ubuntu principles emphasises collaboration, solidarity and teamwork with different stakeholders' such as parents, correctional centre teachers, social workers, psychologist, pastors, and community businesses to support juvenile offender learners' learning and enhance wellness (Gyekye, 2002). The findings of the study indicated that learning support could be effectively achieved through collaboration with various stakeholders to support learning.

The results indicated that even in the contexts that are not necessarily well resourced with learning and teaching support material, participants experienced the correctional schools and teachers able to collaborate with various support structures to support them holistically to improve the quality of learning and wellness. This is evident in participants' reports of support structures to address learning support and enhance wellness. These findings are in line with the literature of Mangena (2016). He urges that through Ubuntu principles, communities, and all other stakeholders can put their resources together to help and support juvenile learners to learn, rehabilitate, and promote their wellness.

Although challenges have been highlighted, participants also emphasised the availability of support structures from the various stakeholders such as a psychologist, social workers, doctors, and or Non-Governmental Organisations as significant in the effectiveness of learning support and promoting wellness. The findings concur with Etieyibo (2014), who reiterates that collaboration in learning support promotes social cohesion between juvenile learners, the schools and the community members at large (Etieyibo, 2014). For this reason, the correctional schools need to collaborate with the communities and various stakeholders to support the learning of juvenile learners.

The assistance from the teachers to arrange peer support such as study groups, peer tutors and peer mentors as reported by participants in the study, motivates and encourages the support of active learning and enhances social, emotional, physical, spiritual and intellectual wellness. The findings are in line with Ubuntu principles that embrace sharing of knowledge, strength and expertise to support juvenile learners to engage in meaningful discussions amongst themselves and motivating each other to learn (Mulaudzi, 2014). Furthermore, a study by Etieyibo (2014) has shown that peer support promotes team spirit practise in correctional schools and reduce socio-emotional distress or disengagement in education.

Findings revealed challenges experience that hinders learning support and career wellness such as lack of skills or training to compete for work when released back to society. Lack of learning support that enhances career wellness might lead them to criminal activities when released back to the community. The findings of the current study coincide with what Boderick (2015) says, that some juvenile offender learners have poor job skills, low education and a poor employment record, which is why they ended up imprisoned. Therefore, it is crucial to create sufficient learning environment for career/ occupational wellness to support and teach learners skills and knowledge to start their own business and be positive to find work after release.

From the findings participants mentioned, they experience challenges that hinder ample support for learning and enhancement of wellness. Aspects that impede successful learning support such as inadequate and erratic time for class attendance and accessing libraries, violence that disrupts classes, unfavourable learning environment, shortage of security personnel and teachers, English language as learning barrier, and lack of learning and teaching support materials are a barrier to teaching and learning. The findings of this study are similar to the research by Magano (2015), who also discovered similar results that correctional schools experience various disturbances regarding teaching and learning. While Moore and Mokhele (2017) articulate that effective learning takes place in a favourable environment; however, the study discovered contrary results. Juvenile offender learners who live in fear of gangsters, bullying and anger for being in the correctional setting, they experience immense psychological strain and emotional pain, which have adverse outcomes in learning support (Moore & Mokhele, 2017).

## **Conclusion and Recommendations**

The study revealed evidence that juvenile offender learners received and used various forms of learning and teaching support from their correctional schools, teachers, security official, peers and collaboration various stakeholders to improve their learning and wellness. The Ubuntu principle shown by the teachers and peer tutors in the correctional schools yielded positive outcomes. The learning support assisted in meeting juvenile offender learners' academic, social, physical, emotional, spiritual and career needs by addressing barriers to learning, creating a conducive

environment, enhancing their wellness and improves their academic performances. These support systems need to be fostered and encouraged by the authorities in the Department of Correctional Services and the Department of Basic Education. As regards to challenges associated with the inadequate supply of learning and teaching material, extra time for learning in schools and accessing libraries, feedback from their examinations regularly, participants explained that they struggled. The recommendations here are for the correctional school authorities to add extra time for learning, employ more guards to escort them regularly to classes and sports field for additional sports activities. Also, the researcher feels that there is a need for more lessons on practical or hands-on lessons than theory because participants indicated that they need learning support on practical training of skills such as electrician, building or carpentry, and assistance in learning to start their own business after their release and to avoid recidivism.

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## **Factors and components affecting smallholder dairy farmers and the local value chain in Gjirokastra region**

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### **Abstract**

Livestock is one of the agro-food sectors, very important in Albania. About 1/2 of farmers are engaged in animal husbandry, including the dairy sector. Dairy products occupy an important part in the consumption basket of Albanian families. Milk production is mainly dominated by cow's milk (more than 4/5). In general, dairy products are destined for the domestic market, so the increase in production is mainly driven by the increase in domestic demand, while the balance of international trade in dairy products shows a structural deficit. The dairy sector is considered a priority sector based on the potential for import substitution. During the first decade of the transition, there was a large growth trend in the production of milk (and dairy products), growth that continued throughout the following years. Despite these improvements, milk yield (eg for cows, which is the main source of milk production) is lower than the yield in EU countries. In addition to the low yield, another major concern is the lack of compliance with standards, which prevents Albania from exporting dairy products to EU markets. The objective of this study is to provide an overview of the dairy sector, analyzing recent developments and the current situation, and including opportunities, constraints and difficulties, with a particular focus on investment needs/potentials.

**Keywords:** smallholder dairy farmers, local value chain, employment, strategy, funding.

### **Introduction**

To achieve the objectives of the study, data and information from secondary and primary sources were used. Semi-structured interviews with value chain actors and sector experts were used as the primary source of data collection. The data was analyzed using various techniques, including descriptive analysis, trend analysis (dynamic), text analysis, and strategy based on SWOT analysis. The combination of



qualitative and quantitative analysis has been essential to identify/understand trends, gaps and investment needs.

Many processing factories have problems with liquidity related to the process of cheese production technology. For this reason, there is a need for short-term loans in this value chain. The current policy of partial grants has important implications for financial institutions - they have the opportunity to co-finance investments (stalls, cold chain, milk processing, etc.) for the investment of 100% of the amount, of which at least 50% can be a short-term loan (the part that must be reimbursed by the grant after the end of the investment) and a 50% long-term loan for the part that must be paid by the beneficiary.

This study was financed by the National Agency for Scientific Research and Innovation within the project "Standardization of Livestock Products in Gjirokastër District".

Agriculture is one of the main sectors of the Albanian economy in terms of employment and contribution to GDP and is considered a priority sector by the Albanian government. Despite recent growth, Albanian agriculture still faces various challenges, including difficulty in accessing credit. The agricultural sector attracted only 2% of the total lending of the economy. The dairy sector is one of the main agri-food sectors. About half of the farmers are engaged in this sector. Milk production has increased in recent years. In general, dairy products are destined for the domestic market, so the increase in production is mainly driven by the increase in domestic demand. Despite the observed growth, the balance of international trade in dairy products shows a structural deficit, which means potential for increased production to replace (part of) imports

### **Objectives of the study:**

The overall objective of this study is to provide an overview of the selected value chain in Albania by analyzing recent developments and the current situation, and including opportunities, constraints and difficulties, with a particular focus on investment needs/potentials. .

More specifically, the study:

- provides an overview of the main trends in production, international trade and market trends;
- provides a "snapshot" of value chain structure, value chain flows and governance, with a particular focus on "value chain leaders"
- analyzes key aspects of the value chain through a strategy based on SWOT analysis, and

- provides recommendations for the main opportunities for the banking system (investment financing, working capital financing and value chain financing).

This study provides information and recommendations that may be useful to guide entry strategies (interventions) for financial institutions or for the preparation of financial services products.

## **Methodology**

### **Selection of the sector**

This study is part of a scientific research project funded by the National Agency for Scientific Research and Innovation "Standardization of livestock products in Gjirokastrë District and creation of a trademark". For this reason, the first phase consisted of identifying the priority sectors for which there is the highest demand/potential for growth and investment; this is taking into account the market potential for exports or the potential for import substitution. Two groups of factors were taken into consideration when identifying the products to be analyzed, namely the market potential and other factors that enable the product's competitive advantages.

The market potential is examined from two perspectives: export potential and import substitution potential. Export potential takes into account the emerging performance of exports (the actual trend of exports) combined with the international demand for a given product - when exports increase over time and this coincides with the increase in international demand, this product is considered to have export potential. Import substitution potentials examine the potentials to meet domestic demand. Other aspects that lead to a competitive advantage include the supply-side factor, such as the labor-land ratio, tradition and skills, as well as the links established between actors in the value chain, including also the tested links between Albanian actors and international buyers. The value chain of dairy products is considered a priority sector considering the potential for import substitution.

### **Data Collection**

This study is partly qualitative and partly quantitative. This enables a better understanding of the status and dynamics of the relevant product chain. The study combines the analysis of secondary data and primary data. For various issues/indicators, the analysis is based on secondary data (including sectoral/structural data). The secondary data were obtained from MBZHR (Ministry of Agriculture and Rural Development), INSTAT (Institute of Statistics), UNSTAT COMTRADE (for international trade), FAOSTAT (for production and consumption) and EUROSTAT (for production and international trade) etc. Also, a review of other studies and reports was conducted. The limitations encountered are that for some indicators (related to domestic production and internal trade) no statistics are available, while for some others there are no recent statistics. However, for

international trade, the most recent data were found and analyzed. Meanwhile, in those cases where it was necessary and possible, data were collected from other countries (or regions) for the purposes of a comparative analysis. Primary data collection was carried out through semi-structured in-depth interviews with key informants who are value chain actors and sector experts. In order to identify the main actors and experts for each value chain for the semi-structured interviews (part of the primary qualitative study) a survey with a "snowball" sampling technique was used. In-depth interviews with key informant actors (along with studies of available documentation) enabled updated understanding of key patterns and key links of the value chain. Due to the limited resources and time available, only a limited number of interviews were conducted.

### **Data analysis**

Regarding data/information analysis, secondary statistical data were subjected to standard descriptive analysis, including tables and graphs showing statistical or historical trends. The comparison of production and consumption trends with those in the world, in Europe and in some cases with neighboring countries was also carried out, when this was necessary. Regarding the interviews with experts/actors of the value chain, the notes were analyzed using qualitative analysis techniques, with the aim of summarizing the most important and interesting issues mentioned in the interviews. Value chain analysis is used as a general framework for the analysis of the structure of the value chain (products, finance and information) and for the analysis of flows.

## **Tendencies and Perspectives of the Livestock Sector**

### **Production Trends**

#### **Primary Production**

The production of milk and dairy products has suffered a large decline during the beginning of the transition after the restructuring of the post-communist agricultural sector. However, milk production began to increase rapidly in the first decade of transition - relying mainly on small farms producing for own consumption and sale and driven by increased demand for domestic consumption. The increase in the production of milk (and dairy products) has continued throughout the following years. While the number of cattle and small animals has decreased during this period, milk production has increased (see table 1), confirming an improvement in yield (efficiency), made possible by investments in breeds and better management associated with a consolidation tendency (in terms of the size of livestock farms). Milk production is mainly dominated by cow's milk.

**Table 1: Amount of milk collected 2017 - 2021, Kg**

Categories	2017	2018	2019	2020	2021	Categories
Cow's milk	109,601,825	120,570,108	124,236,091	101,318,790	93,856,590	Cow milk
Sheep milk	13,484,215	12,065,551	10,041,317	10,349,729	13,071,155	Sheep's milk
Goat's milk	8,080,942	6,226,765	5,267,339	7,217,779	7,794,931	Goat's milk
Cream						Cream

Source: INSTAT, 2022

**Table 2: Milk production by counties, 2021.**

No.	County Prefecture	Milk – Milk							
		Total Total	%	Cows * Cows	%	Sheep	%	Goats	%
I	Bera	51,820	5%	37,424	4%	6,241	8%	8,155	10%
II	Debar	71,830	7%	63,786	7%	3,686	5%	4,359	5%
III	Durres	69,493	7%	62,962	7%	3,030	4%	3,501	4%
IV	Elbasan	112,639	11%	95,041	11%	6,301	9%	11,297	14%
V	ferri	181,590	18%	167,376	19%	8,033	11%	6,181	8%
VI	Gjirokastra	35,496	4%	19,459	2%	7,935	11%	8,103	10%
VII	Korce	112,487	11%	93,230	11%	11,168	15%	8,090	10%
VIII	Kukes	53,260	5%	48,960	6%	2,235	3%	2,065	3%
IX	Lezha	53,967	5%	48,179	6%	1,375	2%	4,413	6%

X	Shkoder	76,215	8%	65,518	8%	4,008	5%	6,689	8%
XI	Tirana	113,421	11%	105,74	12%	2,525	3%	5,150	6%
XII	Vlore	80,802	8%	51,700	6%	16,93	23%	12,17	15%
Total / Total		1,013,0	100	859,38	100	73,46	100	80,17	100
		20	%	1	%	6	%	3	%

**Source: INSTAT, 2022**

The counties with the highest concentration of small milk production are Vlora, Gjirokastra, Korça and Elbasani, which together account for more than 1/2 of the total production. In general, counties that have a higher concentration of wool usually tend to have more of the same, since both of these species are more common in mountainous areas.

### Processing

Available data show a slight decline in dairy production over the period 2017-2021, with fluctuations from year to year. In general, the demand for cheese, yogurt and butter in the country is mainly covered by domestic production. In general, the production of dairy products is destined for the domestic market, so the decrease in production is mainly driven by the decrease in domestic demand. As mentioned above, there are fluctuations from year to year and from product to product, but at the same time concerns have been raised about the reliability of data on domestic production due to the high level of informality in the processing of dairy products.

**Table 3: Progress of cheese production in our country, 2017-2021**

Dairy products	2017	2018	2,019	2,020	2021	derivatives
Cheese	14,712,154	14,580,870	13,589,977	11,711,889	13,113,905	Cheese
By type of milk						By origin
Cheese from cow's milk	10,895,070	11,400,986	10,955,091	8,814,766	9,492,348	Cheese from cow's milk
Cheese from sheep milk	2,757,922	2,341,064	1,927,461	1,958,414	2,560,039	Cheese from sheep's milk

Cheese from goat's milk	1,059,162	838,820	707,425	938,709	1,061,518	Goat's milk cheese
By texture						According to hardness
Soft cheese	8,255,670	7,764,763	6,554,730	5,430,507	7,069,846	Soft cheese
Medium-hard cheese	4,093,721	3,852,338	3,431,770	3,394,720	2,998,184	Semi-hard cheese
Hard cheese	918,019	1,352,343	1,858,140	1,025,720	1,082,193	Hard cheese
Fresh cheese (curd etc.)	1B,444,744	1,611,426	1,745,337	1,860,942	1,963,682	Other products (Milk curd, Yogurt sauce)
Processed cheese	211,960	443,371	452,840	464,090	435,987	Processed cheese

Source: INSTAT, 2022

The main dairy product is cheese. About 3/4 of the total cheese production is based on cow's milk, the rest on the milk of small animals, mainly sheep. The main type of cheese is soft cheese (white like feta cheese). This type of cheese is widely consumed, but also preferred by processors because of the quick return on investment. Often soft (white) cheese is stored/seasoned for several weeks compared to hard cheese called "kaçkavall" and "vize" cheese, which is seasoned for several months, which constitutes a liquidity limitation. Hard cheese is more likely to be produced during months of higher milk production. There are no data or statistics on the percentage of dairy products that are produced using (partially or fully) milk powder, although cases of significant use of milk powder have been reported. Dairy product labels do not indicate whether milk powder has been used. This is also a concern for consumers.

### International Trade Trends

The trade balance of dairy products shows a structural deficit, but much lower if compared to the other sub-sector of livestock, that of meat. Due to market conditions and production limitations (animal feed costs in Albania are higher than in other countries of the region, mainly due to the small size of farms), the trade deficit of dairy

products should be considered as structural and it is expected to continue like this in the future. Exports are negligible due to limitations in standards and due to structural constraints. Imports of dairy products mainly consist of cheese and UHT milk. Another dairy product that is imported is milk powder, up to about 500 tons/year or about 1 million USD - as mentioned a little above, it is used in agro-industry (often mixed with fresh milk) to produce dairy products, partly to bear the costs of fresh milk and partly to cover the shortages/gap between the seasonality of demand on the one hand and the supply of fresh (raw) milk on the other.

**Table 4: Albania's foreign trade in dairy products (HS 04)**

year	Exports Million USD	Imports Million USD	Export/Import
2005	0.2	5	4%
2010	0.57	12.57	4.50%
2015	2.98	20.4	14.60%
2020	1.93	22.02	8.80%
2021	1.37	20.71	6.60%

Source, INSTAT, 2022

Cheese exports are negligible or very low. On the other hand, during the last years, an increase in the amount of imported cheese has been observed.

**Table 5: Import and export of cheese, Albania, by year**

year	Exports (000 USD)	Imports (000 USD)	Export/Import Value
2005	:	1.417	:
2010	:	4.273	:
2015	15	5.585	0%
2019	2	5.153	0%
2020	54	6.105	1%
2021	171	8.236	2%

Source, INSTAT, 2022

The main export partner is Kosovo, however, exports are negligible (below USD 200,000). The main supplier of imported cheese is Germany, with 44% of total imports, followed by Italy and Austria, which together account for 2/3 of total imports.

### Customer requirements and preferences

Cheese is the main dairy product and one of the basic food items in the Albanian consumer's basket. One of the most important factors related to consumer

preferences is the type of milk used to make the cheese. Of course, most consumers prefer cheese made without milk powder, but made only with fresh, raw milk. The use of powdered milk is perceived as an unnatural and non-traditional method for cheese production. Even the origin of production seems to be an important factor for the majority of Albanian consumers. According to various studies, most consumers choose their products from the origin (domestic versus imports, southern products). In general, there is a strong consumer preference for local food products. Also, within the group of local products, there are significant differences in perceptions based on the region of production within Albania. Most consumers consider the region/area of origin as important or very important when deciding to buy Albanian products, including dairy products and especially cheese.

Albanian consumers in urban areas show a strong preference for Gjirokastra cheese. Also, most consumers are willing to pay a higher price for cheese produced in their preferred region. Consumer preference for cheese from Gjirokastra (or other regions), which has a great tradition and long history in cheese production, constitutes a potential to develop regional brands. The apparent consumption of cheese in Albania is lower than the average per capita consumption in Europe, which in 2018 was around 13.8 kg/capita, while in Albania it was 6.3 kg/capita. Montenegro has the highest cheese consumption per capita of all Balkan countries, while Serbia has the lowest per capita consumption.

### **Security Standards**

All the way down the value chain there are deficiencies in food safety standards. Albania faces serious problems in the national food safety control system in terms of legislation, infrastructure, institutional capacities, control and law enforcement, which affect real and perceived safety risks for consumers. Problems in the food safety system have been identified by several studies. The standard of food safety is a main concern perceived by Albanian consumers. Numerous studies document/highlight consumer concerns about food safety. The main law on food safety in Albania is the law "On food", no. 98638, (dated 28.01.2008). It sets out the requirements for the production and placing on the market of safe human food and animal feed products, to some extent in line with EU provisions. The Ministry of Education and Culture has determined the Minimum National Standards (MSK) in accordance with EU practices. Good agricultural practice (GAP) should coincide with the type of cultivation that a farmer should follow in the region concerned, including as a minimum compliance with general legal requirements for the environment. During the last years, food and farm safety, business licensing, collection and transport of milk, animal health, etc. Despite legal and institutional changes, many farmers are not informed or aware of the standards. According to a previous study, about 87% of surveyed dairy farmers state that they do not have cooling tanks (tanks) for milk storage, which is a prerequisite to achieve milk safety and quality standards. Most farmers do not know which institutions are responsible for food safety, animal



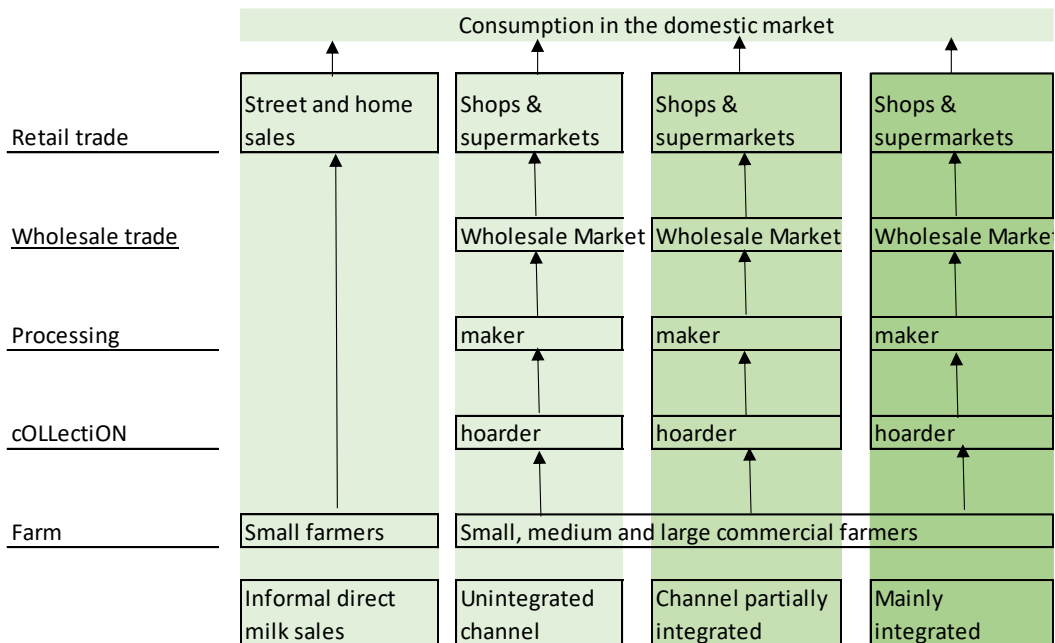
health or continuous control of standards. Although most farmers state that they have a register of animals (live thing) on the farm, they do not know which institution is responsible for their control. Lack of awareness of standards leads to non-compliance with these standards, which means lower market access (especially in the case of exports) and restrictions on access to funds, where access to these funds is conditional on the fulfillment of certain standards in a documented manner. The growing pressure from alignment with EU legislation to improve standards means increasing demand for significant investment along the value chain to meet standards. Awareness campaigns combined with efforts for more rigorous law enforcement and the availability of financial incentives would greatly increase the likelihood of increasing these investments at the farm, trader and processor level.

### Structure of the Value Chain and Main Actors

#### Value Chain Structure and Stakeholder Profile

Figure 1 below schematically identifies the actors of the milk value chain and the main channels through which milk flows from farmers to the end consumer.

**Figure 1. Diagram of the value chain in the dairy sector**



**Source: Paper of the Authors**

As can be seen in the figure, the main actors in the milk value chain are farmers, milk collectors, milk processors and wholesalers and retailers of dairy products. We first

present a brief profile of the main actors in the value chain and then continue with the description of the flows in the value chain and the coordination of this chain.

## **Farmers**

Most units producing milk from cows are very small, with only 1 cow per farm, mainly oriented towards meeting the needs for personal consumption. Accordingly, 59% of dairy farms have only 1 cow. About 1/3 of dairy farms have 2-3 cows and can be considered farms that produce for own consumption and to sell, since farms with 2-3 cows usually sell a part of the milk. About 8%, or almost 13,000 farms, have 5 or more cows - these farms are market-oriented, among which there are 1,748 farms, or 1% of them, with 11 cows or more, which are more market-oriented. strong market orientation and a stronger potential for future investment

The largest farms with cattle for milk are respectively those with 21-50 cows and those with over 50 heads, which can be considered large farms in the Albanian context.

In terms of distribution at the district level, market-oriented farms are found mainly in the low and western areas of Albania, namely in Fier, Shkodër, Vlorë and Durrës, where there is also a generally greater concentration of all types of farms with cows for milk. Dairy cows are normally kept in simple stalls, fed mainly on forage and grazed on grass and meadow fields, and are also given concentrated animal feed and minerals. In only a few cases, large farms have invested in modern stables and started to implement a mostly stable production regime. Small cow farms usually milk cows by hand, while larger ones have milking equipment. Most sheep and goat milk production units are also very small; the average sheep herd size is just under 30 and the average goat herd size is approximately 25 goats. There are about 40,000 farmers who have sheep and 22,000 who have goats. Most herds of minnows are mixed (combining both types). Most of the smaller farms have up to 10 heads. Only 43% of farmers who have sheep and 33% of farmers who have goats have more than 10 heads. In most cases, the goats are raised on pasture - however, cases of intensive breeding have recently been noted for some larger goat farms. Only 5000 (5% of all small dairy farms) farms are considered large commercial farms. These farms could be of interest to the banking system. The modal value for large commercial farms appears to be between 101 and 200 head.

It is clear that most herds are small. There are several reasons for the predominance of small herds and the decrease in the number of small animals, including: - Difficulty in finding food, especially during winter; - Lack of capacity for milk collection/processing. This is most evident in the Kukës district, where, despite the large area of pastures/lawns, herds are small and production is low; - Ownership problems on pastures; - Lack of manpower; young people have emigrated or do not want to work in livestock farming; - Breeders of imtaves are mainly middle-aged or elderly individuals; - Lack of financial resources to buy animals, feed for animals, etc.,

in all counties. In terms of distribution at the district level, market-oriented farms of sheep and goats are found mainly in the mountainous areas of Albania, namely in Gjirokastrë, Vlorë, Berat and Korçë. The production system is usually pasture-based. Sheep and goats depend almost entirely on grazing for sustenance; they are kept mainly on pastures, both in winter and in summer. In summer they also use the agricultural land after harvest. Smaller farms in Albania operate almost exclusively with manual milking technology, which requires a lot of work. Sheep and goats milk twice a day and the milk is preserved using several methods: it is kept fresh in cold running water; it is kept fresh through plastic bottles filled with ice, which are placed in milk drums and in special cases also in cooling tanks. Cooling in the cold water system is used only in mountainous areas that have a stable water supply. Farmers are more interested in cold storages, because they offer the possibility of cooling the milk during the night and then delivering it to the processors in the morning, however, access to energy remains a problem in mountainous areas/pastures. Larger smallholder farms have invested in improved stables and many produce their own animal feed by growing fodder and grain. However, the low intensity of capital use for production for both cow and small farms has resulted in low productivity, relatively high production costs and low profit, which do not enable the accumulation of capital for new investments making so that the level of production and yield in many livestock farms is low.

### **Milk collectors**

Milk collection and transport is one of the weakest points in the value chain. Collection of raw milk is mainly organized by milk processors and private milk collectors. Farmers also deliver significant amounts of milk for processing to processing units<sup>10</sup>. While milk processors usually collect milk mainly from the area where the processing unit is located, specialized independent collectors also collect milk from more distant areas. Small farmers usually do not have any milk cooling equipment (cooling tank), so collection is done at least once a day, and from May to September it can be done twice a day. A private independent milk collector typically collects milk from 50 to 150 farms (approximately 500 to 1500 liters per day). They earn about 2-7 Lek per liter of milk for the collection service, depending on the distance traveled for collection; this is where they act as independent entrepreneurs - however often, particularly in the case of some of the larger milk processors, the collectors may be employees of the company. Evening and morning milk is often mixed in barrels or plastic drums, often at a high temperature and for a long time. Also, milk of different qualities is mixed and transported in the same load. Cleaning and sanitizing milk containers is often inconvenient. In mountainous areas, the time needed to collect and transport milk is even longer (up to four hours without refrigeration). Milk containers (pails) are mostly not made of plastic for holding food or stainless steel materials and most of the milk is not stored or transported at the required temperature.

## **Milk processors**

Sheep and goat milk are processed almost exclusively to produce cheese. Milk delivered to milk processors is processed in different ways based on tradition, experience and knowledge. Counties such as Korça, Gjirokastra, Saranda and Vlora are traditional sheep and goat milk processing counties and have more experience and knowledge to produce hard cheese (yellow cheese also known as kačkavall and viza cheese) and white cheese with brine (Feta cheese). Cheesemakers have passed their knowledge of cheesemaking down to the younger generation of their family, making it easier to find people who have deep knowledge of traditional cheesemaking. The situation is quite different in other areas such as Dibra, Kukësi or Shkodra. The differences with these areas can be seen not only in the quantity of cheese produced, but also in its quality, especially for hard cheese and Feta type cheese that is produced from sheep's milk or from a mixture of sheep's and goat's milk. The cheese sold in the market is different in taste, composition and other physical (chemical) parameters. The supply of milk from farms is the main problem for the milk processing industry. Supply from farmers has low food safety standards and often high collection costs, although this varies from county to county. In some areas, the high price of milk combined with its low quantity results in low profit for the business. Increasing the quantity and quality of milk production is the basis for the development of a modern dairy industry. Sufficient supply of milk to processing plants is important for utilization of equipment capacity and distribution of fixed costs through higher production. The processing technology in this area is characterized by two types of processing units, namely seasonal processing units and those that operate all year round that can be larger and more mechanized. Seasonal processing units are quite common especially in the case of milk processing from flocks. The dairy industry suffers from fragmentation, poor quality of raw material and poor processing practices, especially in the case of small and medium-sized companies. Many cheese factories do not have sufficient storage capacity and usually the milk is processed using a primitive technology. The short period during which sheep and goat milk is available (100-150 days per year) requires relatively large herds for milk supply; otherwise, the cost of milk collection can be high and milk quality control difficult. Under these conditions, small processing units (up to 5 tons/day) located in the production area seem more suitable; in a typical situation such a unit covers about 150 flocks of 50 sheep/goats each (about 5 villages). Small processors suffer from a lack of sufficient knowledge of the technological process, which leads to low standards and quality and unreliable cheese product (different qualities over time). According to the study, there is a demand or need for expertise and education regarding the technological process of milk processing.

## SWOT Analysis and Funding Needs

### Strategy Based on Swot Analysis

The following strategy based on SWOT analysis aims to identify financing opportunities in the dairy sector.

Table 6: Livestock sector, Strategy for SWOT analysis

STRENGTH(S) (+)	WEAK POINTS (W) (-)
The pastures in Albania are rich/quality (for grazing)	Unsuitable breeds result in low milk yield.
Long tradition in cattle breeding	The small size of the farms making it expensive to produce animal feed and the high dependence on expensive imports.
Investment in modern dairy farms (mainly cows) by a significant number of business-oriented farmers	Insufficient food sources, especially during winter; low maintenance pastures and meadows
Investments in facilities and modern technology by a significant number of milk processing factories	Inadequate stalls
	Poor milk safety and quality Poor milk collection infrastructure
	Outdated milk processing technology and (often) incomplete

		equipment for smaller dairies
		Lack of waste processing and disposal systems in large farms and dairies
		Limited investments in the processing of livestock by-products
OPPORTUNITIES (O) (+)	STRATEGY FOR S (+) / O (+)	STRATEGY FOR W (-) / O (+)
The possibility to buy animals of breeds with high productivity		Support for breed improvement
Stable domestic demand for dairy/cheese products	Support to increase milk processing capacities	Support for the improvement of pasture infrastructure, including water distribution points
Potential to increase the number of animals	Support investments in the diversification of dairy processing, including fruit yogurt and yogurt drinks	Support for increasing the number of animals, supporting in particular large farms
Donor support for investment and technical assistance to improve standards		
Sufficient amount of by-products of animal origin (skins and others)		Support for the improvement and completion of technology in small and medium-sized dairies
		Support for the construction/renovation of stables

		Support for waste processing and disposal systems
		Support for cooling systems for milk collection
		Support for the animal by-products processing industry
		Support investments in safety and quality control capacity at the processor level, targeting medium and large operators.
THREATS (T) (-)	STRATEGY FOR S (+) / T (-)	STRATEGY FOR W (-) / T (-)
Lack of significant exports to date - limited supply and security issues		Supporting investment related to supply and security (as above)

**Source: Prepared by the authors**

### Conclusions

In general, the production of dairy products is destined for the domestic market, so the increase in production is mainly driven by the increase in domestic demand. The dairy trade balance shows a structural deficit, but much lower than the (international trade) deficit in the meat trade (so, within the livestock sector, dairy seems to outperform meat production). Due to market conditions and production limitations (costs for animal feed in Albania are higher than in other countries of the region), the trade deficit of dairy products should be considered structural due to deficiencies in standards and due to the structural limitation (related to the small size of the farm) of the livestock sector.

Milk production comes mainly from small semi-specialized farms and mixed activity farms. Cow's milk comes mainly from lowland and hilly areas; the breeding of small animals for milk is concentrated in the south, where the specialized cheese factories are also located.

This study informs financial institutions and other parties interested in supporting the dairy sector about the main opportunities to finance this sector. These opportunities include support to increase the number of heads (cows, sheep and

goats), financing the construction of animal stables , supporting the cold chain at the processor level, supporting the improvement of milk technology and increasing capacities. Other investments that can be considered for support are the support of businesses related to the use of waste from milk processing, or even support for larger projects that deal with the processing of waste, improve the technology of animal feed production, the conditions of pastures or investments related to standards for agriculture or processing.

Milk collection and transport is one of the weakest points in the value chain. In most cases, the milk is not kept under refrigeration conditions during the entire storage period on the farm and during transport to the processing plant. Therefore, there is a clear opportunity to finance this stage of the value chain, with a preference for large processors and aggregators.

Investments are expected in dairies with a capacity of 4-10 MT per day (medium for Albanian standards) in function of the slow consolidation of the processing sectors, in order to increase efficiency, improve quality and introduce better packaging and new products . Investments for the establishment of new milk processing businesses (start ups) can also be taken into consideration, although very carefully, since they are high risk.

Business support related to waste from milk processing, waste processing plants, animal feed production technology, improvement of pasture conditions and investments related to agricultural and processing standards can also be considered.

The dairy sector is considered a priority sector for the Albanian government. The current policy of partial grants has important implications for financial institutions - they have

the possibility to co-finance investments (stables, cold chain, milk processing, etc.) for the investment of 100% of the amount, of which at least 50% can be a short-term loan (the part that must be reimbursed by the grant after the completion of investment) and a maximum of 50% long-term loan for the part to be paid by the beneficiary.

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## The Covid-19 Pandemic in the Light of Populism

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### Abstract

This article discusses the negative impact of populism on covid-19. In the article we are trying to analyze the essence of populism. We believe that populism is not an ideology or a phenomenon characteristic of any part of the political spectrum. Its occurrence is the same across the political spectrum. Populism can also be linked to the covid-19 pandemic. As part of this connection, there have been several misconceptions surrounding the pandemic. These are misconceptions that deny and vulgarize the pandemic, cast doubt on the effectiveness of vaccination, cast doubt on the Sputnik V vaccine, as well as other misconceptions and untruths. The article provides a deeper analysis of these lies, and also points out the perniciousness of their connection with populist politics.

**Keywords:** populism, covid-19, misinformation, vaccination.

### Introduction

Populist politics is one of the ancient phenomena that has accompanied it since the very beginning of human history. Pluralistically oriented social concepts were opposed by others - Nazism, fascism, Marxism, Falangism, etc. Their real influence gradually decreased after the Second World War. "Within the new social movement, new ideologies emerged in the 1960s" (Rosůlek 2012, p. 162). Multiculturalism, pacifism, feminism, etc. pointed to the lack of legitimacy of existing pluralistic systems.

Historically, the original root of populism is the approach of the political elites that represented the agricultural circles of North America in the 19th century. They were concentrated in the People's Party (Rosůlek 2012, p. 163). We consider it necessary to point out that populism cannot be reduced only to ultra-right parties, since its elements are manifested in almost the entire spectrum of the political spectrum. For example, in the 1960s and 1980s, the left engaged in populist politics.

### Theoretical study of the issue

It is sometimes customary to attach a certain meaning to the term populism. Since there are no classical texts of the 20th century, or even texts recognized as key ones that could serve as a common starting point for all studies of this phenomenon, it is difficult to single out any social philosophy or ideology as the essence of populism in its purest form. Trying to find common features of populism in a motley political spectrum is really difficult. Etymologically, it is very difficult to deduce anything, except perhaps for the relatively recent People's Party

from North America. Populists have influenced the later argumentation of both key political parties in the US. This party positioned itself as a mass party, voted for by declassified elements and marginalized groups. Populism did not escape the political practice of the 20th century, where it manifested itself across the entire range of the political spectrum. It cannot be described as a phenomenon of the political center, right or left.

The Latin term *populus* means "people" and was associated with the population of the Roman Empire as *populus Romanus*. This collective entity could acquire property, enter into contracts, and be appointed heir. We can meet this term in the framework of Russian political history. We are talking about the orientation of the Russian intelligence towards the Russian peasants in the sense that they will build a socialist society. An important political scientist, one of the first to describe populism, is Ernesto Laclau. He did this in his seminal work *Politics and Ideology in Marxist Theory*. "Populism links Laclau to the concept of hegemony. It begins at the moment when popular democratic elements act as antagonistic views against the ideology of the ruling bloc" (Rosůlek 2012: 166). Populism is often seen as one of the causes of military conflicts. "Military conflicts have one thing in common in terms of origin, populism" (Hikmet 2016, p. 298). Another populist theorist, Margaret Canovan, describes populism as an appeal to people who oppose established power structures and the prevailing ideas and values of society. Canovan tries to characterize populism as a form of political thinking and rhetoric containing a set of rhetorical devices and devices with one common feature - constant appeal and reference to the collective form of people (Chamulová 2009).

It is important to realize that the idea of a single, monolithic people with the same problems and preferences is misleading. We believe that the term populism cannot be considered only in the sense of a democratic state. There are many types of social organization, and democratic systems are only one part of the whole. Finally, not all countries of the world have a democratic state system. We can talk about populism both in history and in the present. We can find several attempts to characterize populism, apart from the one already mentioned, for example, the idea of direct contact between the people and the political elite without institutions that would constitute the transmission lever. Populism in this case is essentially a strategy aimed at ensuring direct contact between the elites and the masses. Some populist leaders are leaning towards a plebiscite. In principle, we can say that populism as such is not tied to any geographical or historical context. It can appear in a different culture, as well as in a state with a different structure and historical development. Consequently, it is not ideologized, it is neither a social philosophy nor an ideological trend, it does not have a specific place in the political spectrum and is not tied to a specific political culture. "Left populism is predominant in Latin America, appears in Greece and often also in the countries of Central and Eastern Europe, respectively in the post-communist states" (Štefančík 2022, p. 42). The far-left anarchist position really works only marginally. Right-wing populism can be found in Austria, Italy, Germany, Denmark, Norway, Sweden, the Netherlands, etc. Right-wing populism is mainly focused on protecting the cultural identity of a particular culture, the concept of otherness (Štefančík 2022, p. 42). Right-wing populism has its own language, dominated by conspiracy theories that divide people into theirs and them, appeals to emotions, scandalous tendencies, adjectives expressing skin color, and so on. (Štefančík and Hvasta 2019).

The topic of covid-19 resonates around the world to this day. Although the war in Ukraine took first place in the media in the Central European space, the topic of covid-19 is still relevant. The pandemic appeared at the end of 2019 in China. "The public became more aware when

the first cases of pneumonia caused by a virus of unknown origin were reported among local residents in Wuhan, a city located in Hubei province in central China, in late December 2019” (Przybyła and Bačík 2019, p. 44). If until the end of 2019 this topic was not highly relevant in the media space, then since the beginning of 2020 the topic has become the most topical in the world, which lasted until the start of the war in Ukraine. The penetration and connections of the topic of the pandemic are quite diverse. There is also a connection with ethics and social philosophy.

The covid-19 pandemic has definitely come as a big surprise to the whole world. Mainly due to the large distribution around the world. It was not a matter of spreading to several continents, the pandemic covered all continents in a short time. Some naturally isolated states have benefited from their geographical position - they have suffered only slightly. The pandemic has also affected the social sphere. Here it was reflected in the deterioration of relations at different levels. Negative economic developments are also significant. Many countries have experienced relatively significant economic downturns. Strict restrictive policies, vaccination of the majority of the population, and other measures in many states have prevented even more deaths in many states.

Today's task is to learn how to prevent a crisis and especially how to deal with a crisis in such a case. It is about eliminating mortality, as well as economic consequences. The strict lockdown was able to largely eliminate the health effects of the pandemic. The movement of goods is saved. This strategy has also been largely applied in countries that are geographically isolated or that have a policy of high closure to foreign tourists. Denmark, for example, coped well with the pandemic. In Asia, many countries have suffered, except for states with a relatively closed foreign policy. The whole of Europe suffered greatly. The worst performers in South America were Argentina, Chile and Brazil. The situation was also bad in many African countries. The naturally geographically isolated Australia and Oceania fared relatively best. In terms of the economic situation and trade turnover, the pandemic marked a real economic downturn in many countries. International trade, tourism and, in some cases, even manufacturing has experienced declines. Uncertainty in financial and capital markets has also increased. “The measures taken to prevent the spread of the COVID-19 pandemic negatively affected the entire economy, consumption was limited, and there was a general slowdown in the economy” (Krásna 2021, p. 32).

### **Covid-19 as a topic of populist misinformation**

The underestimation of the pandemic is due to the arguments of some populist politicians. Ignoring and simplifying the pandemic is a serious problem. Basically it has two reasons: ignorance and populism. Some theorists and politicians oppose the violation of human freedom. You can ask how things are with human freedom and anti-pandemic measures. Measures against a pandemic should not be spontaneous, chaotic or determined by the arbitrary decisions of politicians. On the contrary, their introduction is due to compliance with the findings of scientific medicine. Decisions should not have political reasons and should not be associated with any clientelism. Public communication and education are also important. “The COVID-19 pandemic has made it clear that effective public health messaging is an essential component of a robust pandemic response system” (Nan, Iles and Ma 2022, p. 1).

The primary objective of restrictive measures is to protect the life and health of the population. Restriction of movement and social contacts pursues this main goal. A significant change is the increase in remote work. This form of work can have far-reaching implications.

There are certain connections between the topic of covid-19 and populism. In the countries of Central and Western Europe, parties across the political spectrum have been involved in discussions about the covid-19 pandemic. Parties at the end of this spectrum, both right and left, were no exception (Štefančík 2022, p. 16). Štefančík made an interesting argument according to which “populists consider scientists to be part of the elite, and since they do not trust the elites, they do not trust scientists either” (Štefančík 2022, p. 97). According to this author, populists do not even trust those institutions that change people's lives with measures against the pandemic. This attitude is called scientific skepticism. “Populism, associated with doubting the results of scientific research, is aimed at the scientific, research and academic elite and depicts it as opposed to ordinary, ordinary people” (Štefančík and Zamborová, 2022, p. 393). Reality is completely different. “Scientists are obliged to participate in solving problems, explain, offer ready-made solutions, advise the public and advisory bodies, guide public opinion, and prevent the spread of pseudoscience” (Lešková Blahová 2022, p. 38).

In the early months of the pandemic, it may have seemed to some that the measures against covid-19 were aimed at a fictitious pandemic. This disease has not yet become widespread. Questions arose on several fronts. Several doubts arose. The first concerned the plausibility of the danger of the covid-19 pandemic. The second was related to the effectiveness of wearing masks. The third doubt concerned the meaning of vaccination against the pandemic. It was also appropriate to ask whether these measures are contrary to human rights and freedoms. The economic aspect of the issue is also a relatively important issue. Remote work, on the one hand, makes changes in the form of exclusion of social contacts. On the other hand, remote work provides many significant opportunities for change, especially in the sense that the worker is not tied to work at the place of residence. The measures are also related to the restriction of freedom. From the point of view of liberal philosophy, this is definitely a restriction of freedom. It should be noted that the concept of freedom is also present in Spinoza, as an understanding of necessity. It is necessary to look at meaningful anti-pandemic measures as a necessity if they are implemented in close accordance with the conclusions of scientists. However, anti-pandemic measures should not be abused for the sake of senseless measures and clientelism.

The economic side of the problem is also interesting. During a pandemic, it is interesting to look at the well-known contradictions between Keynes and Friedman about government intervention in the economy. During a pandemic, such interventions are essential. The approach taken by Keynes is definitely more correct in this context. Friedman's approach in this matter would mean taking special care of his business, thus losing the holistic effect. If the state applied the Friedman approach, the economic situation would become unsustainable. Many businesses need to be rescued from the government during the pandemic crisis, without government intervention they would not have survived (Gaffová, Šatanová 2017). Reliance on the natural mechanism of the market economy, according to Friedman, would necessarily lead to the death of many enterprises that would not have a chance to survive. “With the world on the cusp of another steep recession and with an environmental catastrophe looming, we can no longer afford the luxury of an economic policy that concentrates on fighting inflation, leaves

unemployment for emergency measures, and wealth and income distribution to the market.” and ignores environmental issues” (Skidelski 2020, p. 345).

As we have already mentioned, populism also uses conspiracy theories in its argument. This fact is also pointed out by the philosopher Popper in *The Open Society and Its Enemies*. Popper argues that these are reminiscences of religion, which was once a near-universal explanation, especially in the context of bad events. According to Popper, religious explanations were later replaced by conspiracy explanations. Several conspiracy theories regarding the Covid-19 pandemic have been reported. For example, in Slovakia, information appeared on social networks, according to which test equipment was deliberately saturated with a pathogenic mixture. Thus, the real purpose of testing was to cause disease in the population.

Another of the problematic theories has emerged in connection with the Russian Sputnik V vaccine. There were negative statements by a Slovak doctor about this vaccine. She claimed that each bottle contains a different sample that has been tested in different countries of the world, and only the name connects them. At the same time, the aforementioned employee did not have samples from other states, so she did not have the right to such a deduction. Finally, the Sputnik V vaccine was approved in Slovakia, and citizens were able to get vaccinated with it. Although the said person found two different batches, he unduly expanded the sample of two samples into test samples distributed throughout Europe. Based on two chemical analyzes, it is not possible to draw conclusions from several dozen samples. The named vaccine was developed by a serious scientific institution with a long scientific tradition, which is part of the Russian Academy of Sciences. All professional and scientific topics were politicized in Slovakia. The result was the dismissal of the Prime Minister of the Slovak Republic and his replacement.

A fairly common conspiracy theory is that covid-19 is a media hoax. According to these statements, the covid-19 pandemic has no content. The conspirators claim that the entire real nature of the covid-19 disease does not exist and is a fabrication. They think it's a media game. The opinion that the pandemic is a fiction and does not actually exist was also expressed by some politicians. With a sharp increase in the number of cases and with the experience of lethal outcomes in everyday practice, this position of opinion has gradually become marginalized. Another relatively common belief is that a pandemic is an attempt to wipe out the number of people on the planet.

“A hugely popular conspiracy theory has been the idea that vaccination is primarily tied to the profits of pharmaceutical companies” (Štefančík 2022, p. 111). It is clear that many companies and individuals have profited from vaccination. It should be remembered that the main reason for vaccination was not financial gain. The primary reason for vaccination has been and remains the protection of the population. Many empirical studies, as well as statistical data, clearly point to the obvious positive effect of vaccines in preventing a pandemic. “Regularly updated data from the US for December 2021 shows that vaccines reduce the risk of infection by 67% and the risk of hospitalization by 85%” (Fl'ak 2022, p. 2). There are many scientific studies and statistical analyzes that provide real results. “In this area, sensitive and non-confrontational communication with the provision of facts is important” (Vaclaviková and Gažovičová 2021, p. 95). Real facts speak of positive results in the prevention of the pandemic, its course and symptoms.

The other side of the issue is the degree of danger of vaccination. The truth is that vaccination is not always without negative side effects. Several deaths in direct causal relationship to vaccination have been reported in Slovakia. It was a one-digit number, up to 10 people. Unfortunately, the adverse effects of vaccination also came in this form. Other adverse health effects have also been reported. Statistics from the Slovak Republic say that 1715 serious consequences of various types of covid-19 vaccines have been registered to date. It is worth noting that of the total number of severe consequences, only 6 severe consequences are attributed to Sputnik V. Similarly, no deaths have been reported in connection with the Sputnik V vaccine. Serious side effects included: persistent increase in blood pressure (mainly in patients treated for hypertension), pre-collapse, collapse, loss of consciousness, thrombosis, allergic reactions, anaphylactic reactions, facial nerve palsy, vaccine failure, phlebotrombosis, pulmonary embolism, sudden cerebrovascular accident, thrombocytopenia (mild to severe), fibrillation, myocarditis, myocardial infarction, arthritis, pericarditis, hypertensive crisis, hearing loss, polyneuropathy, hyperthermia, epileptic seizure in patients treated for epilepsy (National Institute for Medicines Control, 2022). Much is also said about the effect on female pregnancy. "The fact is that there is a common amino acid sequence between the viral spike protein and syncytin-1 (a protein in the placenta), but it is too small to initiate an immune response that can affect pregnancy" (Saleem 2020, p. 1).

In comparison, in Slovakia 20,964 people died as a direct cause of the covid-19 pandemic, which is the size of an average regional city. This is a relatively large population. Fortunately, the percentage of deaths from the pandemic was not comparable to the cholera epidemics of the 19th century. Despite the sacrifices on the part of the vaccinated, where 7 deaths were recorded, despite some side effects, vaccination saved the lives of a large number of people.

In this regard, another misconception has appeared that vaccination is ineffective. According to this view, the overall value of vaccination is zero because vaccines were developed too quickly. This point of view simplifies the work of scientists in the field of medicine. As a counterargument, one can cite real experimental results, as well as statistical indicators (Petráš 2021; Andrews et al., 2022; Zheng et al., 2022). The vaccine reduces the risk of infection and also facilitates the course of the disease. This is an effective and fully justified tool in the fight against the covid-19 pandemic.

In connection with vaccination, there have been rumors that covid-19 vaccines change DNA. "There are other myths that this vaccine contains a tracking device and can change a person's DNA" (Saleem 2020, p. 1). The role of the vaccine is to build the immune system. With it, the body must create a sufficient amount of antibodies. The vaccine does not interact with DNA and does not have the ability to transform it in any way. It is also true that it is impossible to get sick directly from a vaccine. There were also rumors that vaccines affected blood types differently. Experiments have not confirmed this fact.

The success of general population testing remains in question. It is known that the reliability of the PCR test is close to 100%. The antigen test has a reliability of 34-80%. This depends on various factors such as the stage of the disease, the amount of virus in the sample, and the method of collecting and processing the sample. Obviously, a confidence of 50% or less refers to a result that has 2 possible values - person covid-19 positive and covid-19 negative without meaning. This means that the validity of the antigen test is indeed questionable. According to statistics, 7,391,882 PCR tests were used in Slovakia, but as many as 44,672,712 antigen tests.

Thus, the effectiveness of testing was indeed very questionable. Antigen tests have been widely used, despite the variance of significance, the lower limit of which is less than 50%. I believe that this measure has not achieved the necessary effectiveness and the expected effect. Testing has replaced strict lockdowns, resulting in unnecessary deaths.

## Conclusion

In principle, the pernicious influence of populism can be ascertained in several directions. The full extent of this influence is also having an impact in the area of covid-19. It manifested itself in the interpretation of obvious misconceptions, affecting primarily a part of the less educated population. Sharing, spreading and repeating such disinformation has very negative consequences. This increases the number of people who reject various forms of measures against the covid-19 pandemic. In principle, there are three types of nonsense spread not only by other people, but also by populists. First of all, these are the most common statements based on premises: a) the covid-19 pandemic is a hoax, it does not exist; b) the negative effects of vaccination exceed the positive ones, as a result it is harmful, c) the Sputnik B vaccine is a vaccine with a high level of unwanted side effects. All three statements are misconceptions, helped to spread by poorly informed and uninformed citizens, as well as populist politicians. According to a study (Pažitný et al. 2021; Pažitný et al. 2022), several thousand people could be saved in Slovakia if the anti-COVID policy were identical to those in Denmark. A certain share of responsibility for these deaths is also borne by populist politics (vaccinations should have been higher, a hard lockdown was introduced late, permission for weddings without a reason, politicization of the use of the Sputnik V vaccine, a false dilemma - either mass testing or strict quarantine that puts questioned the danger of a pandemic by some politicians). It is necessary that citizens trust scientists, science as a socially useful institution, and not dubious politically motivated claims.

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## The World's Burden of Diabetes During the Latest Three Decades

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### Abstract

The World's Burden of Diabetes During the Latest Three Decades Might Not Be on the Account of Type II Diabetes but on Potential Stress Diabetes; Type II Diabetes is Not Curable While Stress Diabetes Could Be Corrected. **Aim:** Demonstration of an observational association between the flaring challenge of *Helicobacter pylori* and the spreading world's diabetic phenomena during late three decades so that control of diabetes spread could be possible. **Background:** The spread of DM is rising all over the world in a dramatic way same as the fire spreading in hey especially in developing countries giving the term "diabetic epidemic" an actual credibility. The late three decades demonstrated rediscovery and antibiotic aggression towards *H. pylori*, development of migrating *H. pylori* strains and flare up of diabetes mellitus. Any study which does not correlate between these findings of the last three decades is definitely not employing any clinical sense. *H. pylori* could be forced to migrate to the colon under the influence of the antibiotic violence with consequent accumulation of profuse toxic amounts of colonic ammonia unopposed or buffered by any acidity leading to a biological toxic stress to the body that could predispose to stress diabetes among disadvantaged susceptible population. Administration of oral hypoglycemic pills to a stressed pancreas constitutes an insistence to flog a tired horse turning a potential condition into an established chronic illness with consequent flare up of the diabetic phenomena all over the world. **Conclusion:** The world's spread of diabetes during latest three decades might not be on the account of type II diabetes but stress diabetes due to a potential toxic stress signifying that the diabetic condition could be corrected and the world's diabetes spread could be readily and adequately controlled.

**Keywords:** ammonia, diabetes, *Helicobacter pylori*, stress diabetes, type II diabetes.

### Introduction

The widespread prevalence and the challenges constituted by *Helicobacter pylori*; namely its close relation to acid peptic disease, gastric carcinoma and lymphoma have led to the widely-established improper unjustified medical concept that *H. pylori* eradication should be a necessary attempt. Although eradication regimens apparently eradicate *H. pylori* from the stomach; the emergence of antibiotic-resistant *H. pylori* strains, the severe side effects and the high costs are major drawbacks of these treatments particularly if it is proved that these medications do not readily eradicate the bacterium but actually force it to migrate from the

stomach elsewhere where adverse sequels could begin. The exact prevalence of the abnormal-behavior/existence migrating *H. pylori* strains constitutes lately more than 80-90% among population of developing countries (Volk et al, 1996; Farinha& Gascoyne, 2005; Nasrat et al., 2015a). More efficient, economic and friendly drugs need to be developed.

The latest reports in literature demonstrate a definite flare up of many medical challenges strictly related to *H. pylori* existence through immune or different unknown reasons. Autoimmune thyroiditis, autoimmune pancreatitis and idiopathic thrombocytopenic purpura are examples of these challenges (Farinha& Gascoyne, 2005). The flare up of these *H. pylori*-related medical challenges is sufficient to denote that the current combined antibiotic eradication strategies are inadequate to control all the problems associated with the stomach bacterium.

*H. pylori* colonized the stomach since an immemorial time (Farinha& Gascoyne, 2005; Nasrat et al., 2015a); as if both the stomach and the bacterium used to live together in peace harmless to each other; what does this could mean!! Could *H. pylori* be a natural innocent bacterium and falsely committed with pathologic crimes which are not induced by its own or it has been forced against its nature to the pathologic sequels related to it!! Could *H. pylori* have a real biologic function that could issue its innocence certificate!!

## **Aim**

Demonstration of an observational association between the flaring up challenge of *H. pylori* and the spreading world's diabetic phenomena during late three decades so that control of diabetes spread could be possible.

## **Review**

DM in developing countries has been lately described as the fire when spreads in hay giving the title "diabetic epidemic" an actual credibility (Al-Nozha et al., 2004 Nov). Traditional risk factors do not appear fully sufficient to explain this dramatic spread of diabetes in these countries; in a way that further indicates that the traditional measures employed to control the spread of the disease would never be adequate or decisive (Nasrat et al, 2015b).

The ill-decisiveness and the obvious length of the current *H. pylori* eradication treatment courses allowed the chance to the stomach bacterium to mutate or develop drastic or resistant strains. In addition, the aggression made by antibiotics could have forced this bacterium to hide or migrate where it could influence or compromise the immune system. (Farinha& Gascoyne, 2005; Nasrat et al., 2015a). Frankly and in scientific words, if *H. pylori* is a natural bacterium entitled for a biological function in the gut, then no power could overcome it except forcing it to migrate from its normal habitat of natural function where its biological value is sacrificed while complications and undesired pathologic dilemmas could rise up somewhere else (Nasrat, 2017).

DM, a disease of rich, which was once considered a disease of the developed world has become a worldwide pandemic resembling an ocean tsunami wave flooding the whole world with two thirds of the poor diabetic population living over the developing side of the globe. (Katulanda, 2006; Wissow, 2006). As much as the precise statistical revision strongly correlates between the prevalence of *H. pylori* and the flare up of DM in developing countries, it also reveals that the diabetic challenge was not as such in these countries before the antibiotic violence towards

***H. pylori*** (Hossain et al, 2007; Einecke, 2006; Yach, 2006). The literature reports indicate that most of the diabetic patients in the world are inadequately controlled in spite of regular follow up of medications and extreme carefulness about style of life that could mean existence of a missed underlying environmental error influencing the challenge of diabetes (Nasrat et al, 2015b).

## Discussion

A lot of controversy has been encountered as concerns the current strategies for ***H. pylori*** eradication. The efficacy of ***H. pylori*** eradication strategies, the appropriate length of treatment and the cost effectiveness, all appear controversial (Ikeda, 2001; Mason, 2002). Further reports in literature have devaluated the triple therapy and suggested a quadruple one (Songür, 2009).

***H. pylori*** recurrence; whether it is gastric recurrence from dental plaques, fecal-oral recurrence or recurrence via meals is hardly avoidable (Nasrat et al, 2015a). The current antibiotic therapies appear to be successful only in forcing ***H. pylori*** outside the stomach to recur later or migrate and hide elsewhere mostly in the colon. The migrated ***H. pylori*** strains in the colon would continue producing ammonia for a reason or no reason leading to accumulation of profuse toxic amounts of ammonia, un-opposed or buffered by any acidity; this matter could constitute a biological toxic stress to the body that could lead to stress diabetes. Administration of traditional oral hypoglycemic pills to a stressed pancreas means an insistence to flog a tired horse leading to turn a potential condition into an established chronic illness with consequent dramatic flare up of the diabetic phenomena all over the world (Nasrat et al, 2015b).

A comparative study done in 2015 has demonstrated superiority of natural measures in the form of the potent natural senna purge extract and vinegar therapy over the anti-***H. pylori*** antibiotic eradication strategies (Nasrat et al., 2015c). The effectiveness and safety of natural measures in the management of the challenge of ***H. pylori*** have been also emphasized in further studies (Nasrat et al., 2015d; Nasrat et al, 2015e).

In a further study in 2015, the newly discovered diabetic condition has been successfully and permanently corrected in most patients of the study, 16 patients out of a total of 18 patients (88.9%), via mere colon care and colon clear employing natural measures namely the potent senna purge and vinegar therapy (Nasrat et al., 2015b).

In the light of the accurate determination of recent findings and statistics, a revision of the current guidelines for the management of ***H. pylori*** and newly discovered DM might be needed. It might be incorrect that the current world's burden of DM is on the account of type II diabetes. It seems that the antibiotic violence has obliged a domestic bacterium to become wild in attitude and sequels instead of getting rid of it. The stress element caused by the accumulated toxic amounts of colonic ammonia in leading to an onset of diabetes is not just hypothetical as upon the basis of this concept the diabetic condition has been readily and adequately corrected in good number of newly-discovered diabetic patients. (Nasrat et al, 2015a; Nasrat et al, 2015b).

## Summary

*H. pylori* colonized the stomach since an immemorial time and it is leading in the stomach the natural behavior of biological bacteria in the gut. It seems clear that it is true whenever man interferes severely in the nature dilemmas are brought up. *H. pylori* escapes from the stomach sacrificing its biological function in the stomach to do the good biological job in an improper site (Farinha & Gascoyne, 2005; Nasrat et al., 2015a). The onset and flare up of stress diabetes all over the world during the latest three decades due to accumulation of colonic ammonia of the migrating colonic *H. pylori* strains in profuse toxic amounts consequent to a third world antibiotic medical war against an innocent bacterium is not just a scientific fantasy as upon this concept the diabetic condition has been readily and permanently recovered among many newly-discovered diabetic patients via mere natural colon care and colon clear (Nasrat et al., 2015b; Nasrat et al., 2015f).

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### Conflict of interest

No conflict of interest is existing.

### Conclusion

The world's spread of diabetes during the latest three decades might not be on the account of type II diabetes but on stress diabetes due to a potential toxic stress caused by accumulation of potential toxins in the colon signifying that the diabetic condition could be corrected and the world's diabetes spreading challenge could be readily and adequately controlled as type II diabetes is not curable while stress diabetes could be recovered.

It is worthy if this hypothetical concept of stress diabetes all over the world during the latest three decades and its direct etiologic association with the migrating *H. pylori* strains could find the attention of research investigators for its further assessment, revision and accurate re-determination as rendering this concept valid would be quite promising for the welfare of the global healthcare.

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## Impact of covid-19 and pandemic in educational institutions

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### Abstract

An infectious disease known as Covid-19 that originates from China in late 2019 quickly evolved into a global phenomenon within several months. In relation to having an enormous detrimental effect on well-being, the Covid-19 medical emergency is having substantial negative impact on a wide range of many other areas, particularly in educational institutions. Since the Covid-19 pandemic started to spread widely worldwide, transition to online teaching and learning brought out a great deal of changes to professors and mostly to students.

**Keywords:** Covid-19, Web-based learning, Academic institutions, Learning platforms, Educational systems.

### Introduction

Covid-19 pandemic has created the largest disruption of education systems in history, affecting nearly 1.6 billion learners in more than 190 countries and all continents (United Nations, 2020). Students that experienced online learning have faced many difficulties during the period of pandemic. The transition was smooth for some schools but rough for others, particularly those from underdeveloped countries with limited infrastructure (Pham & Nguyen, 2020; Simbulan, 2020). Their greatest challenge was linked to their learning environment at home, while their last challenge was technological literacy and competency (Barrot, Llenares & Del Rosario, 2021). Covid-19 is inflicting and exacerbating educational risk and increasing imbalances in academic institutions in a global scale.

As the world continues to struggle with the aggressive Covid-19 emergence, schools and as well many other academic institutions have now been pressured and obligated to shift to entirely web-based learning. Any learning habitat in which it incorporates Internet, certain electronic devices or rather facilities both for provision and maintenance of educational systems, so far has been associated with digitalized schooling.

Behavioral issues, poor mental health, traumatic experiences and concerns about lost and wasted students and teachers engagement potentially affected both sides. Megan

Kuhfeld is a research scientist at Northwest Evaluation Association (NWEA) which is a platform that assists and take care of students that need academic support. Alongside other scientists such as Jim Soland, Karyn Lewis and Emily Morton they made a research on the destructive impacts Covid-19 pandemic had on the learning process for students in grades from 3 to 8. In addition to surging Covid-19 cases at the end of 2021, schools have faced severe staff shortages, high rates of absenteeism and quarantines, and rolling schools closures (Kuhfeld, Soland, Lewis & Morton, 2022). This research is focused in a reading and a mathematical test scores linked to the first two years since pandemic started using information and sources from 5 million students. The test was concentrated on scores before Covid-19 outbreak started (fall of 2019) and lastly approximately one year into pandemic explode (fall of 2021).

Average fall 2021 math test scores in grades 3-8 were 0.20 - 0.27 standard deviations (SDs) lower relative to same-grade peers in fall 2019, while reading test scores were 0.09 - 0.18 SDs lower. This a sizable drop. For context, the math drops are significantly larger than estimated impacts from other large-scale school disruptions, such as after Hurricane Katrina, math scores dropped 0.17 SDs in one year for New Orleans evacuees (Kuhfeld et al., 2022). This study examines the score of test gaps between two ranges of students. The comparison is between high and low poverty schools increased by 20% in mathematical section (correlating to 0.2 SDs) and 15% in reading section (correlating to 0.15 SDs), essentially throughout the 2020-2021 academic year.

These statistics are concerning and presumably disappointing, particularly knowing both students and teachers courageous sacrifices to gain knowledge and educate in extraordinarily challenging circumstances. Such test scores did not necessarily reflect either these students are indeed representative of “failed” generation or that perhaps everybody might give up easily on them.

Teachers are certainly not to be attributed for the sharp decrease in goal attainment or academic regression respectively from 2020 to 2022. Nevertheless, teachers already had demanding and difficult responsibilities prior to the unexpected Covid-19 epidemic. From now on they are facing enormous new dilemmas or various challenges, many of whom are beyond their power, supervision and control. Educational institutions and school systems are predominantly in a process of trying to discover appropriate intervention strategies and different techniques to utilize productivity downgrades considerably for the past two years. The “Road to Covid Recovery” project and the “National Student Support Accelerator” are two such large-scale evaluation studies that aim to produce this type of evidence while providing resources for districts to track and evaluate their own programming (Kuhfeld et al., 2022). Furthermore, an increasing range of methods have indeed been invented and developed for students that need help. These approach consist on how to optimally establish health care and recovery services since Covid-19 pandemic started, ongoing



training courses or even intensive learning sessions in summertime when academic institutions are closed due to summer holidays.

Additionally, Associate Professor of Anthropology Elise Berman at University of North Carolina in the city of Charlotte, NC accompanied by Vicki S. Collet who is professor at the University of Arkansas in the city of Fayetteville, AR proposed to interview teachers along with Marshallese students and their families. These two professors wanted to execute a research to fully learn and understand about their own perspectives and experiences for the duration of Covid-19 outbreak. Marshallese people are of Micronesian origin and are thought to have emigrated towards the Marshall Islands from the continent of Asia hundreds of centuries ago.

The study offers insight for schools closures, whether of short duration, such as weather closures, or longer duration, such as closures due to infections and other crises that may impact face-to-face learning (Berman & Collet, 2021). The study two professors have asserted is titled "It Will Change Traditional School in a Very Positive Way: Educators' Perspectives of the Marshallese Experience during Spring 2020 Remote Learning. It is freshly broadcasted in Review of Education, Pedagogy and Cultural Studies. The study has broader implications. Our findings suggest that when educators are aware of and responsive to cultural and familiar structures and schedules, the likelihood that school-based learning activities will take place at home increase.

Educators should also be careful to value the varied modes of learning and interaction occurring at home (Berman & Collet, 2021). Teachers and instructors might even notice and identify upon that source of comprehension which students adsorb within their societies, families and communities. Professors and teachers might often highlight regarding the way they are using digitalized learning. From now on, digitalization is the main theme of delivering education. Teachers and education providers are adopting new ways of learning mostly based on digital tools. It will take time for them to collaborate with the new system and as well as for the students.

Teachers have to communicate and interact with all of the families, but also to ensure their students are secure, comfortable and mostly happy with the transition from physically present in class learning to the digitalized school system. These interactions increased educators' cultural knowledge about their students and families (Berman & Collet, 2021). School staff should be careful and take care of Marshallese students. They might have linguistics issues since their national language is not English and also are emigrants that live all across the United States of America.

Similarly, there also seems to have been a massive surge of scientific studies and investigation further into the new way of approach in the academic digitalized based learning. Whereas many solely focused into government initiatives, development opportunities or professional growth, some still are concerned on students actual learning outcomes across the whole time of the pandemic. The influence and

consequences from Covid-19 on college and university students was studied among other researchers by Copeland et al. (2021) and Fawaz et al. (2021). According to Copeland et al. (2021), isolation from school environment and financial/social/health related impacts, all heavily affected students emotion regulation likely resulting to recognition and exacerbating challenges (attitude, temperament, welfare setbacks). Students have expressed insecurities regarding teaching – learning process and formative methodologies, an unmanageable work load and performance requirements according to Fawaz et al. (2021) study. Dr. William E. Copeland is a clinical psychiatrist at the University of Vermont in the city of Burlington, VT and is specialized in epidemiology. Dr. Mirna Fawaz is a medical Professor and Head of Nursing Department at the University of Beirut in Lebanon.

Comparatively, Gonzales et al. (2020) discovered that isolation during most of the Covid-19 pandemic had progressively favorable potential benefits overall their own academic achievement, contradicting to Copeland et al. (2021) and Fawaz et al. (2021) conclusions drawn. Professor Gonzales is a lecturer in Biochemistry Department at University of Madrid in Spain that has examined differences in the online learning since Covid-19 pandemic started. These data collected were based to college student's utilization of study strategies that further upgraded their learning motivation and confidence for future benefits. Public education authorities and different schools rushed to construct reliable standards on regulatory framework, educator administration/leadership and student development when it comes to initiatives and guidelines.

Amidst their inadequate technological proficiency, teachers who have become used to conventional teaching method remained pressured to keep up with new technology. Virtual learning conferences and social assistance or support networks have been implemented to resolve these issues everyone might have. Rates of drop out among most students have risen itself as a result of global economic, sociological and academic elements. Although students could undoubtedly learn and acquire information electronically, mentoring and teaching strategies will be less than equilibrium value, specifically in classes and subjects which it involves face-to-face connection and physical interaction according to Franchi (2020) who is an academic medical researcher at the University of Sheffield in the United Kingdom.

During most of the Covid-19 lockdown, a few researchers suggested to focus on students computerized learning platforms participation. (Singh & Thurman, 2019), for instance, introduced a new structured descriptive questionnaire and survey to determine the student's responses, thoughts, feelings and struggles again throughout epidemic time. Students enjoyed the presence towards online learning platforms during Covid-19 isolation, based to their survey experimental research. Yet, 50% of these students assumed and speculated that classic classroom based learning was quite satisfactory rather than just using digitalized tools instead. In order to ensure validity, the experts revealed that somehow the statistical structure of their research

prohibits a more in-depth assessment of the students reflections. Vandana Singh and Alexander Thurman are Associate Professors of Computer Sciences at the University of Tennessee in Knoxville, TN.

Unlike with the similar research, Khalil et al. (2020) carried out an extensive inspection of the usefulness of programmed web learning for a Saudi Arabian nursing university. Majority of students confirmed about the electronical learning process favorably, notably in terms of saving time, productivity and proper time management, as shown to the collected information. However, respondents mentioned plenty of logistical problems, awful tools functionality, operational issues and interpersonal complexities. Rehana Khalil is a lecturer in medical sciences at the Qassim Uiversity in the city of Unaizah located in Saudi Arabia.

These researches illustrated the virtual learning situation inability to fulfill the necessities of curriculums which further represent practical oriented disciplines, apart from progress to effectively integrate digitalized research laboratories and other medical facilities.

In a parallel manner, Adarkwah (2021) used a descriptive internal discussion to show the impacts of Covid-19 in Ghanian students. In accordance with the findings, Ghanian students regarded web-based learning unsuccessful and inadequate attributed to a range of barriers they are forced to contend with. Lack of social connection, poor correspondence, lack of required technological inputs and lastly low learning expectations were many of the reasons among this online system. Michael Agyemang Adarkwah is a teacher in several schools in Ghana and is a graduate in Educational Sciences from Southwest University in Chongniq, China.

Day et al. (2021) got scientific and concrete evidence by six academic institutions in three countries announced both benefits and disadvantages. Among many of the reported proof there exists absence of suitable gadgets, a poor learning condition in households, and a temporary loss to field observation and experimental availability. Terence Day is Doctor of Philosophy at the Okanagan University College (OUC) in Kelowna, South of British Columbia, Canada.

Fortunately, the proportion of such drawbacks and methods varies significantly within one student to another one. As a result, these individuals shall be properly analyzed and characterized in terms of environmental factors colliding and cooperating. Students opinions and feedbacks strongly demonstrate that the services and programs obtainable, their individual relation between teachers and also other classmates adversely caused distanced electronic learning risks, uncertainties and also many constraints. The compulsory quarantine combined with various economic reasons and social background of students exacerbated ongoing problems that they are confronting into the specific situation of Covid-19.

## **Methodology**

Method used in this research article was carried out with the qualitative method of observation, data collection and their interpretation in previous studies regarding the research question of whether Covid-19 has positively or negatively affected the quality of teaching in educational institutions.

## **Discussion**

These studies, researches, surveys and interviews emphasized the role of educational institutions rapid reaction capacities and flexibility in the scenario onto another catastrophe like Covid-19 epidemic. National institutions, wider organizational agreements, courses and several partnerships are vital in the post-Covid19 crisis world is interfacing nowadays. Uniting schools and industry partners together is a huge movement of fundamental areas which require constant and immediate intervention by government impact, parents, teachers and mostly by the academic supervisors that are in charge for the guidance of future generations.

Secondly, these studies have strengthened and boosted everybody's awareness of multiple limitations which students, especially those citizens that come from countries with the lowest rate of economy and resource base. Moreover, in this category are included students with poor Internet connectivity or unstable household conditions who also might address radically change to the procedure of relocation to fully digital learning. School systems in equivalent circumstances must use the indicated studies made by experts so they can construct and achieve better their own requirements and purposes in order to neutralize Covid-19 lockdown harmful consequences. Researches prepared by experts that contain the right set of knowledge and information needed for students are delivered directly to them. They need to contemplate what methods and technologies might want to use to overcome failures and future competitive obstacles. This would be a crucial evidence regarding innovative decision-making processes and forthcoming virtual learning mobilization.

Third, statistics about Covid-19 impact in educational systems lend support to a much more depth of understanding in convergence and solidarity of instructional strategies by enabling plenty perspectives behind where and how sustainable transformation to entirely online learning would be accomplished.

## **Conclusion**

Covid-19 controversy seems to have unforeseen influence on educational system internationally. It already has accelerated contribution against global educational targets, impoverishing the low and middle class. Despite this, education sector has clearly shown perseverance, adaptive capacity and attempting to set the reference models for a revival. There will still be potential threats and trouble of a descending circular pattern, with failures and stereotyping it as a destructive feedback spiral. Although each critical sequence of escalating economic and social factors tends to prove the total opposite of a proactive pattern, something that could ultimately led to

the future education field anyone wished and desired for. Several of equitable and sustainable adjustments in effective learning evaluation, collective and individual gratification in all spheres of life through investing in education aspect. Everything depends on assets and productive resources to maintain not just education's core functions, but also basic moral structures. National and international authorities need to correspond to fundamental values and constantly propose recommendations. Not only minors might retrieve their guaranteed future, but all educational leaders, administrators and academics can play a large part in making it a reality and reaching the desired goals.

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## **Biomedical Applications Based on Marine Collagen Obtained from the Jellyfish Species *Rhizostoma Pulmo* Extracted from the Black Sea**

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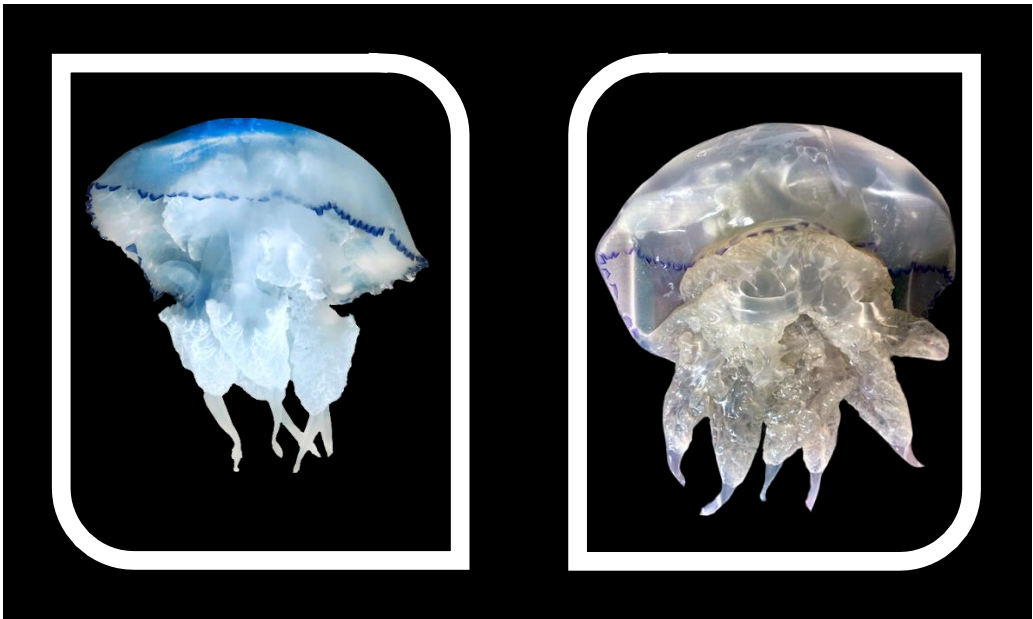
### **Abstract**

Due to its unique properties, collagen is used in various emerging fields such as the pharmaceutical and biomedical device industries, as well as in related fields: nutraceuticals, cosmetics, food, beverages and nutritional supplements. Marine gelatin, one of the biomaterials involved in food and medicinal research, is denatured collagen produced from acid, alkaline, or enzyme hydrolysis. Gelatin is a crucial ingredient for the food, pharmaceutical, medical, biomedical focusing on versatile applications. Jellyfish collagen is a valuable resource for bioplastics and biomaterials used in various health sectors. Recently, marine organisms have been considered viable sources of collagen because they do not harbor transmissible diseases. In particular, fish biomass, as well as the catches of other types of organisms, such as small fish, jellyfish, starfish, sea urchins, sponges, possess a significant content of collagen. The collagen extracted from the species *Rhizostoma pulmo* from the Black Sea basin is also part of the bioresources that can be used to obtain natural marine collagen from this type of invertebrates. The use of discarded or hither to unused biomass could contribute to the development of a sustainable collagen extraction process with a positive impact on the ecosystem. In the future it is desired to approach a world strategy that minimizes the amount of waste and that supports all three general objectives of sustainability: sustainable economic well-being, social well-being and environmental protection.

**Keywords:** *Rhizostoma pulmo*, jellyfish, marine collagen, bioactive compounds, biomaterials, medical applications

## Introduction

Collagen of marine origin can be obtained from various animals, whether they are marine vertebrates - the source of collagen is fish skin, bones, cartilage, including scales, but also from other types of animals such as invertebrates, they are bioavailable compared to collagen bovine or porcine and have a higher absorption capacity (up to 1.5 times more efficient in the body) [1] and faster circulation in the bloodstream due to the low molecular weight and small particle size [2]. Another positive side of collagen of marine origin is the fact that it possesses similarity with conventional bovine and porcine collagen in terms of amino acids in composition and biocompatibility [3].



### *Rhizostoma pulmo* – personal archive photo

Jellyfish collagen can be obtained from different parts of the jellyfish such as the umbrella, oral arms or even from the whole animal. The sources of marine collagen are diverse: fish, jellyfish, sea sponges, sea urchins, starfish, certain species of shells, together forming a biocompatible, natural alternative, without barriers of race, religion, degree of pollution or other inconveniences that standard animal collagen sources can meet them see Fig. 1.

Jellyfish are a rich source of minerals and protein, and collagen is a major protein in these gelatinous sea creatures. Cartilaginous tissue was isolated from jellyfish, later shown to be a type II collagen that can lead to the differentiation of mesenchymal stem cells. From a therapeutic point of view, it is TGF-3 cells in the form of nanoreservoirs that have helped to achieve combined cartilage [4].



**Figure 1 Marine collagen sources**

The objectives of the study consist in highlighting collagen sources, methods of collagen extraction from these sources and enumerating the most important biomedical applications of collagen from marine resources.

## **Materials and Methods**

### **Marine collagen extraction methods**

In jellyfish, it is common to separate the mouth arms from the umbrella and then divide the umbrella into mesoglea, exumbrella and subumbrella [5].

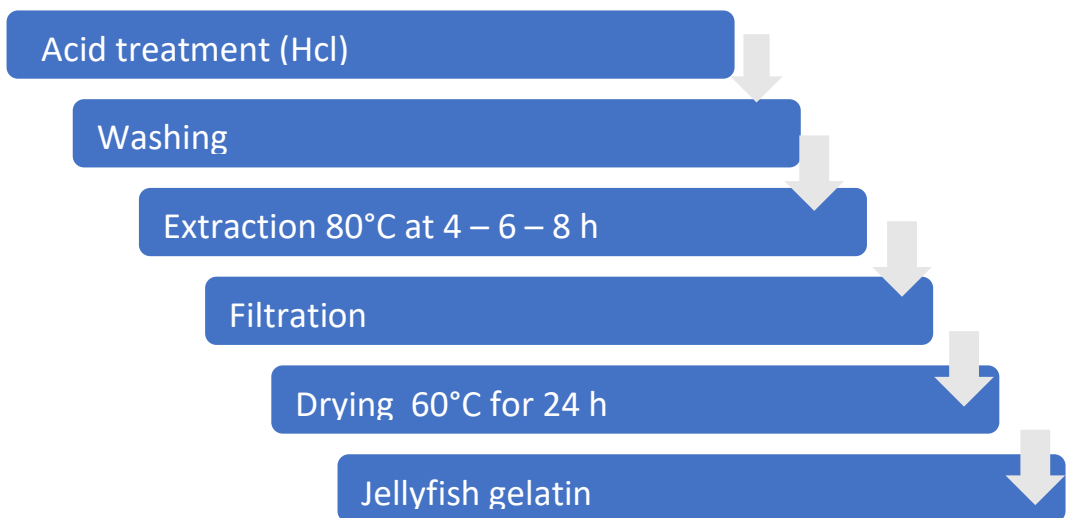
Reducing the size of these samples is essential to facilitate subsequent chemical (pre)treatment actions, used to remove proteins, pigments or non-collagenous fats. The common method involves the use of basic pretreatment with sodium hydroxide (NaOH), which does not cause structural changes to collagen chains, alcohols (namely butyl alcohol or ethanol) and oxygen peroxide in the process of removing non-collagenous proteins, fats and respectively of pigments [6]. In addition, to remove non-collagenous proteins from cod skin, the use of sodium chloride (NaCl) as an alternative to NaOH has also been proposed [6].

Moreover, to improve the extraction of collagen from bones, cartilage and scales, ethylenediaminetetraacetic acid (EDTA) is recommended for demineralization purposes [8]. For the extraction phase, it is well known that the solubility of collagen in cold water is poor due to the presence of strong crosslinks in its triple helix structure. There are two different conventional methods widely used: acid solubilized collagen extraction and collagen solubilized pepsin extraction see Fig. 2. Using these two methods, the yield, chemical composition and characteristics of the collagen



extract differ from each other. The entire extraction phase is carried out at 4 ° C. When collagen extraction is performed using only acid, the product is called acid soluble collagen (ASC). For the extraction of collagen from marine animal tissues, acetic acid is the most used, dilute acid is used (generally at the final concentration of 0.5 M), but also citric acid and lactic acid [7].

About 95% of marine invertebrates such as jellyfish are made up of water, which affects collagen soluble in acetic acid. Therefore, homogenization or lyophilization of jellyfish is necessary to improve the solubility of collagen in dilute acids and consequently increase the extraction yield.



**Figure 2 Jellyfish gelatin extraction**

Recently, it proposed a new method to extract collagen from aquatic animals, in which acid treatment is combined with a sequence of physical and mechanical treatment, including pH adjustments, homogenization, mixing, and sonication [8]. By increasing physical intervention in jellyfish, the extraction yield increased significantly compared to conventional extraction processes [9].

When the enzyme pepsin is added to the extraction process, the extracted collagen is referred to as pepsin-soluble collagen (PSC). This treatment is very useful because proteases cleave the telopeptide of the cross-linked region without breaking the integrity of the triple helix and thus hydrolyze some non-collagenous proteins and increase the purity of collagen [10]. In most cases, enzymes are used to obtain specific protein products, high yield and reduced waste, as well as a decrease in antigenicity caused by telopeptides [11]. However, when a large amount of pepsin is used for a

long time, the yield of PSC may be lower because the collagen is probably cleaved, affecting the integrity of the triple helix. [12].

During the recovery step, collagen is precipitated, generally by adding NaCl to a final concentration of 2.3–2.6 M. The precipitate is collected by centrifugation, dissolved in 0.5 acetic acid, dialyzed, and lyophilized [12].

From jellyfish, collagen is generally extracted by a methodology based on solubilization in 0.5 M acetic acid solution (usually for three days), followed by dialysis against a Na<sub>2</sub>HPO<sub>4</sub> solution. The precipitated collagen is separated by centrifugation, solubilized in acetic acid, and purified by reprecipitation by adding solid NaCl to a concentration of 0.9 M. ASC can also be digested with pepsin to obtain atelo-collagen [12].

## Results and Discussions

Pepsin-soluble collagen treated with ultrasound for 15 minutes showed the highest recovery yield (23.8%) as well as the highest amino acid content (18.2%) [13].

Ultrasonic extraction is an efficient and rapid technique to produce collagen from jellyfish in large quantities. Advantages of ultrasound collagen extraction are:

- obtaining food or pharmaceutical products with a high percentage of collagen
- high molecular weight collagen
- good extraction yields
- preserving the composition of amino acids
- fast processing
- easy operation

Ultrasonic extraction can be used in combination with various acid solutions to release acid-soluble collagen (ASC) from jellyfish. Ultrasonic cavitation promotes mass transfer between the jellyfish substrate and the acid solution through cellular structural disruption and acidification of the substrate. Thus, collagen as well as other targeted proteins are transferred into the liquid. In a subsequent step, the remaining jellyfish substrate is treated with enzymes (eg, pepsin) under sonication to isolate pepsin-soluble collagen (PSC) [10].

Sonication is recognized for its ability to increase enzyme activity. This effect is based on ultrasonic dispersion and agglomeration of pepsin aggregates. Homogeneously dispersed enzymes provide an increased surface area for mass transfer, which is correlated with higher enzyme activity. In addition, powerful ultrasonic waves open collagen fibers, so collagen is released see Fig. 3. Research has shown that an ultrasonically assisted enzymatic extraction (with the addition of pepsin) gives higher yields and an extraction process with a shorter execution time [13].



**Figure 3 UIP4000hdT (4 kW) ultrasonic extraction system**

<https://www.hielscher.com/ro/ultrasonic-collagen-extraction-from-jellyfish.htm>

In order to use salted jellyfish-derived products as raw material, the presence of 20-25% [13] residual salt from the salting process must first be removed. Traditional washing by desalination with water several times and overnight soaking is required before using it for food [12]. This takes a lot of work and time. Washing machines have been used to reduce the time, but the washing process generates a massive amount of waste water [13]. Research has shown that ultrasound can be used to desalt proteins. The application of ultrasound and microwave pretreatment in the desalination of salted egg white or duck proteins can reduce the salt content from 7.80 to 0.62% [13].

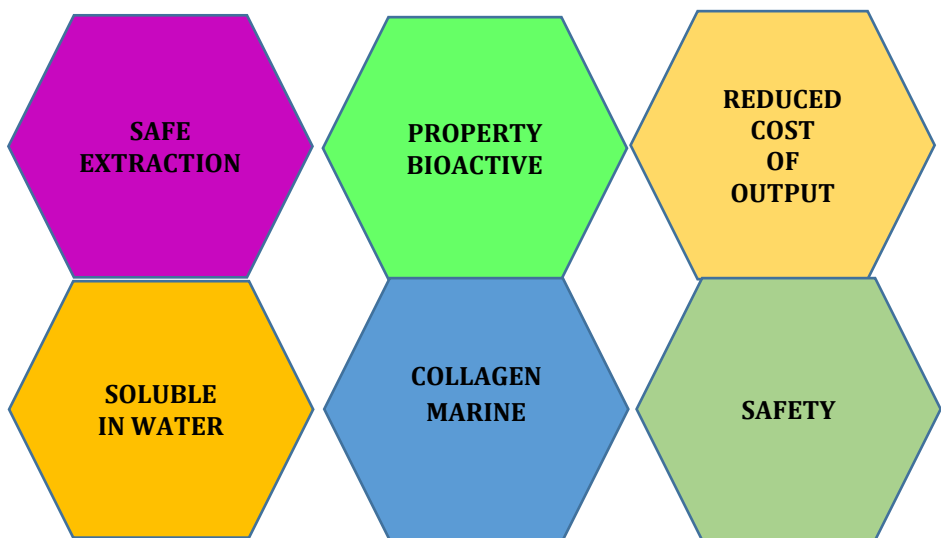
Nowadays, ultrasound, a non-thermal process that generates a sound wave at a frequency of 20-100 kHz, can be applied in food processing, such as in homogenization, emulsification, extraction, crystallization, degassing, marinating or cleaning. Ultrasound has also been investigated for pesticides, mycotoxins, heavy metals and allergen removal [13].

The frequency of ultrasound produces cavitation, crushing, vibration, mixing and heating, thereby reaching the mass transfer to induce the rapid collapse of bubbles and produce shear forces to break covalent bonds in materials [13]. Apply this green technology, ultrasound could be an alternative for removing the remaining salts in salty jellyfish by-products. However, no application of the ultrasonic method for desalination of such a jellyfish by-product sample has been reported.

The structure of type I collagen was observed in the SDS-PAGE pattern of collagens and no structural change occurred during the extraction process. The presence of the helical structure in collagen samples was confirmed by UV and FTIR spectra. The ultrasound cavitation advanced the viscosity of collagens and resulted in excellent solubility in acidic environments and lower salt concentrations.

Ultrasound-treated samples suggested superior water holding capacity along with emulsifying, and foam attributes. The improved gel strength of collagens was parallel with increasing the time of ultrasound up to 15 min. Free radicals scavenging ability and ferric reducing power of collagens were positively stimulated by increasing the time of the ultrasound up to 15 min[13]. Regarding the study it contributes to the development of green technology and the promotion of by-product utilization for collagen recovery as a potential practical protein in biomaterial, wound dressing, drug delivery, food, and cosmetics products[14].

**Figure 4 The qualities of marine collagen**



#### **Applications of collagen extracted from different species of jellyfish**

Jellyfish collagen is an important source of antioxidants. Recently, it was shown that peptide fractions from *R. pulmo* collagen were able to prevent oxidative stress, collagen peptides exhibit antioxidant and antifatigue activity, they were also identified in *R. esculentum* [15], as well as collagen hydrolyzate with several activities (including superoxide anion scavenging and melanogenesis inhibition activities) based on the ability of the hydrolyzate to chelate copper by inhibiting intracellular tyrosinase activity [16].

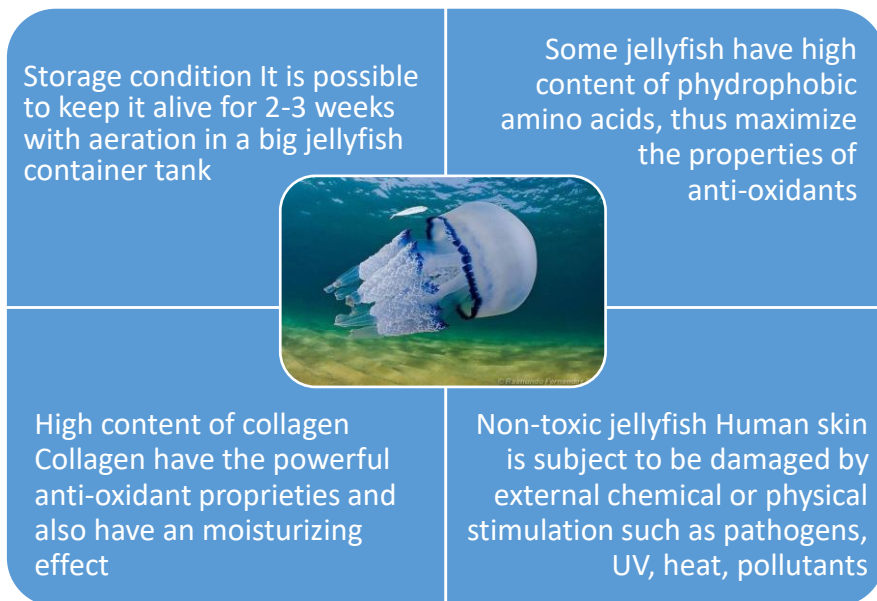
In the case of both jellyfish, it was found that collagen and its hydrolyzate function as protectors against UV radiation, suggesting their possibilities for use in skin care industries [17]. Similarly, collagen peptides from *S. meleagris* have been shown to be an effective tyrosinase inhibitor by acting on glutathione (GSH) levels [18].

According to recent studies, type II collagen extracted from *Rhizostoma pulmo* has been used to develop a collagen-based biomaterial. It was implemented using nanoreservoirs containing the growth factor TGF-3 and human stem cells, building a new adaptive device for articular cartilage repair [4].

The immunostimulatory effect of *N. nomurai* collagen stimulated immunoglobulin and cytokine production, not only in the specific human hybridoma cell line HB4C5, but also in the peripheral blood lymphocyte (PBL) line. In addition to these effects, tumor necrosis factor (TNF) and interferon (IFN) levels were increased in PBL [19].

Thrombosis and hypertension are among the leading causes of cardiovascular disease-related death [20], so research for new treatments remains an active field. In this case, *Rhizostoma pulmo* collagen was used to fabricate a sensor suitable for the clinical detection of thrombin in blood. Collagen was cross-linked to the designed thrombin amine aptamer using glutaraldehyde.

This hybrid sensor displayed a detection limit of 6.25 nM, largely below the imposed clinical limits, suggesting an interesting future involvement of collagen as a promising candidate for clinical thrombin analysis [20].



**Figure 5 The advantages of collagen extracted from jellyfish**

## Conclusions

The contemporary world is faced with the urgent need to find alternative, sustainable and ecological resources due to overexploitation of land resources and waste disposal problems [21]. Today, people are living longer than their ancestors, which means they need more support from the medical, pharmaceutical, nutraceutical and biomedical systems to increase people's quality of life and longevity. Collagen from marine sources such as that extracted from jellyfish avoids major problems arising from cultural practices and religious beliefs, which may limit the use of bovine and porcine products by some consumers and in certain parts of the world [22].

Jellyfish collagen is a source of a great number of antioxidants. Recently, it was demonstrated that peptide fractions from *R. pulmo* collagen were able to prevent oxidative stress in HEKa cells treated with H<sub>2</sub>O<sub>2</sub> [23].

Collagen has several applications in different fields, including nutraceuticals, cosmeceuticals, biomedical, biomaterials and the food industry. Such a large variety of applications means that collagen can be key for the health and well-being of humans. To date, the sources of collagen mainly relied on terrestrial organisms, but they are becoming limited due to the spread of diseases and increasing alternative dietary choices of humans. This review highlights how marine organisms and their wastes can be a sustainable, eco-friendly source of collagen for the applications aforementioned.

Currently, collagen has become a necessary ingredient toward the healthy food development. The production of collagen in the body decreases with age and with an unhealthy diet. As a result, collagen has been added to a variety of foods [24]. Collagens are usually used as food additives to improve the rheological properties and reduce the fat consumption.

Collagens are used also to ensure the presence of adequate amount of animal nutritive fibers [25]. Collagen-based edible films and coatings have already been proposed to protect, maintain and extend the shelf life of different food products. The film or coating acts, in this case, as a barrier layer against the migration of oxygen, moisture and solutes, providing structural integrity and vapor permeability to the food product [26]. Moreover, it prevents fat oxidation, discoloration, microbial growth and preserves the sensory qualities.

In conclusion, research in recent years has focused on marine organisms in order to find new sources, alternatives to those already known and that can be exploited to the maximum with low energy consumption, labor and pollution. Over the past 20 years, more than 28 natural products and 175 chemicals have been found in marine entities, and hundreds of new compounds are still being discovered each year, likely due to advances in collection techniques and molecular biology [26]. To date, there are seven drugs of marine origin approved for clinical use and approximately 26 natural products in phase I to phase III clinical trials [27].

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## **A Review of the Link Between Self-efficacy, Motivation and Academic Performance in Students**

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### **Abstract**

Self-efficacy refers to one's perceived ability to learn or accomplish things at specific levels. It is a belief in one's abilities. A large body of research indicates that self-efficacy improves academic motivation, learning, and accomplishment. Similarly, modern motivation theories concentrate on the cognitive and emotional processes that initiate, guide, and maintain human behavior. When the teacher and peer support are paired with a school atmosphere that supports social values, student motivation to achieve positive social goals and engage in positive classroom behaviors rises. Without a doubt, self-efficacy is linked to student motivation and learning. The conviction in one's ability to achieve is referred to as self-efficacy. Motivation, on the other hand, is defined as an individual's drive to achieve. Thus, self-efficacy and motivation are related. Through a review of literature, the aim of the research described in this paper sought to assess the extent to which student engagement, academic self-efficacy, and academic motivation influence academic performance also the relationship between self-efficacy and academic performance, in order to investigate the link between academic achievement, student involvement (cognitive, emotional, and behavioral), academic motivation, and self-efficacy in students.

**Keywords:** self-efficacy, academic, motivation, performance, students.

### **Introduction**

Bandura (1977) proposed that self-efficacy influences an individual's activity selection, effort, and perseverance. People who lack confidence in their ability to do a task may avoid it; those who think they are capable should engage gladly. Individuals who believe in their talents are expected to work harder and persevere longer when faced with challenges than those who question their abilities.

According to self-efficacy theory, people obtain information to evaluate their efficacy from their performance successes, vicarious (observational) experiences, modes of persuasion, and physiological markers. Individual performances are the most dependable indicators of efficacy. Success increases efficacy whereas failure decreases it; but, if a strong sense of

efficacy is created, a failure may not have much of an influence. Individuals can also learn about their capabilities via the expertise of others. Similar others provide the finest foundation for comparison (Schunk, 1989). Seeing comparable peers do a task convinces viewers that they, too, are capable of completing it. Vicarious information has a smaller influence on self-efficacy than performance-based information; a vicarious improvement in efficacy might be canceled out by future failures. Self-efficacy is neither the single nor even the most important effect on conduct. Many variables influence behavior. Other key elements in accomplishment settings are skills, result expectancies, and the perceived worth of outcomes. When necessary, abilities are absent, high self-efficacy will not result in competent performance.

Self-efficacy is multidimensional, meaning it varies depending on the domain or environment. This means that having a strong sense of effectiveness in one domain does not necessarily translate into having a similar degree in another. Even within the same area, distinct levels of self-efficacy beliefs may exist in different settings. Learners with high self-efficacy explain their failures to fewer tries rather than a lack of ability, whereas those with low self-efficacy attribute their failures to a lack of talent (Pintrich, 2003). During the Covid-19 epidemic, a negative link between general self-efficacy and psychological discomfort was discovered (Shacham et al., 2020). Husain and Schmidt (2014) discovered a link between self-efficacy and academic motivation among undergraduate students in his study. According to one study, there is a significantly substantial positive association between self-efficacy and the drive to learn (Akram & Ghazanfar, 2014). Another study found that pupils with greater levels of self-efficacy complete their activities more successfully and achieve higher academically.

## **Methodology**

In this regard, the aim of the research described in this paper sought to assess the extent to which student engagement, academic self-efficacy, and academic motivation influence academic performance also the relationship between self-efficacy and academic performance. A systematic literature review approach is taken for this analysis, in order to understand the link and relationship between student's self-efficacy and motivation-performance in the academic sphere. Given the significance of academic success in higher education, knowing the factors that impact it is critical. This research has identified shortcomings in the current study. Associative studies may be used to analyze school engagement, and ideas connected to academic motivation, self-efficacy, and academic achievement to better comprehend the concepts and highlight the correlations that exist among other factors.

## **Self-efficacy Dimensions and Role**

Perceived self-efficacy is described as people's perceptions about their capacities to achieve specific levels of performance and exert control over events in their life. People's feelings, thoughts, motivation, and behavior are all influenced by their self-efficacy beliefs. These many consequences are produced by such beliefs via four primary mechanisms. Cognitive, motivational, emotional, and selection processes are among them. A high sense of effectiveness improves human achievement and personal well-being in a variety of ways. People who are confident in their talents see tough activities as challenges to be overcome rather than dangers to be avoided. Such a positive viewpoint promotes intrinsic interest and deep involvement in activities. They create tough objectives for themselves and stay committed to them (Bandura & Wessels, 1994).

Self-efficacy is made up of two parts: (a) prediction of outcome and (b) prediction of efficacy. Prediction of outcome refers to an individual's prediction that his or her actions will result in a specific outcome. A forecast of effectiveness refers to a person's prediction of whether or not he or she will be able to effectively execute a set of procedures to accomplish the intended result. As a result, self-efficacy does not assess one's present skill set, but rather one's opinion of how he or she can execute a task at hand. Despite Bandura's claim to the contrary, self-efficacy theory is theoretically problematic, and the core idea of efficacy expectations is not unequivocally distinct from result expectations. Similarly, we believe that what is being evaluated in empirical investigations is unclear (Eastman & Marzillier, 1984).

When learning complicated activities, persons with high self-efficacy attempt to better their assumptions and tactics rather than looking for reasons such as a lack of enthusiasm for the activity. For example, employees with high self-efficacy are better able to gather relevant information, make informed judgments, and then take appropriate action, especially when under time constraints. Such qualities are useful in occupations that require dealing with furious consumers in a contact center or conquering sophisticated technological issues in a short amount of time. Low self-efficacy, on the other hand, can lead to inconsistent analytic thinking, which impairs the quality of problem-solving - a critical ability in an increasingly knowledge-based society. In a dynamic work environment where continuous learning and performance improvement is required, strong self-efficacy allows employees to respond less defensively when receiving unfavorable feedback (Heslin & Klehe, 2006).

Four essential sources of information impact self-efficacy: performance successes, vicarious experience, verbal persuasion, and physiological information. Internal personal characteristics and external environmental elements are also drivers of self-efficacy. The unpredictability and controllability of its factors influence the degree of change in self-efficacy. Self-efficacy influences how people behave in terms of behavior selection, effort expenditure and persistence, cognition processes, and emotional reactions. Self-efficacy is measured along three dimensions: magnitude, strength, and generality. Self-efficacy should be quantified in terms of specific assessments of competence that may change across domains of activity, various degrees of task demand within a given activity domain, and different situational conditions. Bandura (1997a) identified generality as a third significant assessment feature of self-efficacy. As previously stated, the generality of self-efficacy relates to the degree to which self-efficacy beliefs are positively associated, either within the domain, across behavioral domains, or across time. Self-efficacy beliefs across the domains of concern are used to assess generality.

In addition to length, breadth, and depth, a dimension is employed to be able to utilize geometrical language when addressing phenomena that are dependent on four variables: For identifying locations in space-time, time is considered the fourth dimension. The universality feature of self-efficacy, according to Maibach and Murphy (1995), has not received significant attention in health promotion research. The majority of health promotion research solely assesses the strength dimension of self-efficacy. They claim that measuring all three elements of self-efficacy is not always essential and that the objective of the research will determine which dimensions are required.

### **Academic Self-efficacy**

Academic self-efficacy relates to one's belief in one's ability to succeed at specific levels (Schunk, 1991). According to Pintrich & De Groot (1990), academic self-efficacy beliefs were favorably connected to intrinsic worth, cognitive and self-regulatory technique utilization, and negatively related to testing anxiety. Self-efficacy is also favorably connected to numerous outcome indicators including grades, seatwork performance, test and quiz scores, and essay and report quality. Bandura's social-cognitive theory emphasizes the importance of people's self-efficacy beliefs, specifically their perceived capacities to exert control over their level of functioning and environmental demands. These beliefs have an impact on cognitive, motivational, emotional, and decision-making processes. They also have an impact on ambitions and goal commitment, degree of motivation and endurance in the face of adversity, cause attribution for triumphs and failures, and perception of environmental problems and obstructions (Bandura, 1997).

Academic self-efficacy beliefs influence students' educational and professional goals (Zimmerman & Bandura, 1994). They not only help students define and achieve academic goals, but they also bring great enjoyment and satisfaction with their achievements. Among the techniques focusing on task value, we considered optimum experience, which is the basic idea of psychological selection theory (Massimini & Delle Fave, 2000). This hypothesis investigates the long-term developmental influence of the experiences that people link with their daily activities. Within this concept, the subjective appraisal of environmental chances for action (challenges) and human capacities (skills) in confronting them is connected to the perceived quality of experience. When people perceive both high obstacles and high skills in a specific activity (Massimini et al. 1987), they are more likely to have an ideal experience or flow.

### **Motivation and Academic Performance**

The urge to act in the service of a goal is referred to as motivation. It's a critical component in creating and achieving our goals. One of the driving elements underlying human behavior is motivation. It encourages rivalry and fosters social interaction. Its absence might result in mental diseases like depression. Students' motivation is an essential issue in higher education, especially given the importance of academic achievement in their professional lives. Student motivation is the factor that determines how students perceive the learning process. A variety of studies have been undertaken to investigate the impact of student motivation on academic achievement, and various researchers have utilized different definitions of student motivation. Lumsden (1994), for example, investigated students' engagement in education and the sources of their motivation. Marshal (1987) saw student motivation as a force that benefited the learner. According to Ames (1990), motivation to learn is dependent on a long-term, high-quality connection to learning and commitment to the learning process. Most motivation theorists think that motivation plays a role in the execution of all learned responses, and that taught behavior will not occur unless it is energized. According to Bomia et al. (1997), student motivation is defined as the student's willingness, need, desire, and duty to engage and thrive in the learning process.

Education is a critical component in human resource development. Academic performance is a measure of a student's achievement in several academic courses. Teachers and school authorities often assess accomplishment by classroom performance, graduation rates, and

standardized test scores. Several variables impact children's academic achievement, including their learning abilities, family background, peer influence, teacher quality, and learning infrastructure. Graduation rates are collected by state and federal education officials as a baseline indicator of secondary school success. Each state administers annual examinations to students in elementary, middle, and high school to measure topic mastery (Shakeel & Peterson, 2020). There are several things that might influence a student's academic achievement. However, in today's circumstances, the most familiar variables are Parenting Styles, in which a supporting style has the intended effect on pupils, and Student Characteristics, in which laziness is a prevalent problem for today's generation. Level of Internet Connectivity, where not just students but everyone suffers from poor internet connectivity, and finally, being uninspired has the greatest impact on kids' academic performance. The potential of a student to develop or increase their academic performance is determined by their surroundings and personal traits. Social aid, which includes encouragement, inspiration, and parental participation, was an excellent strategy to boost kids' progress and accomplishments. Regular school attendance and self-motivation are essential in establishing the elements impacting kids' academic achievement. Student's academic performance is substantially influenced by the availability of teaching and learning resources, students' personality traits, personal objectives, and teachers' degrees of expertise.

### **Relationship Between Self-efficacy and Motivation**

Self-efficacy is based on a person's conviction in their own ability to succeed, whereas motivation is based on the person's desire to succeed. Those with strong self-efficacy frequently have high motivation, but this is not a certain result. Educators have long struggled with how to encourage their students. Because intrinsically motivated students can concentrate better and for longer periods of time on a topic, they gain the capacity to adopt a variety of tactics to deal with problems. They labor with attention and perseverance to gain mastery. This is known as flow, and it is achieved through engaging in any activity, learning and implementing the necessary abilities, and being able to identify the obstacles of the activity. This activity improves and strengthens the capacity to focus and succeed. Furthermore, genuinely driven pupils have stronger self-regulation. To understand the link between self-efficacy and motivation, self-efficacy is reported to be a key component in motivation. In this setting, the self is viewed as a cognitive structure that offers reference mechanisms and a collection of sub-functions for perception, assessment, and behavior regulation (Bandura, 1978). Thus, the idea of self-efficacy is essentially a belief in one's ability to accomplish a specific activity. It is precisely described as people's assessments of their ability to organize and execute courses of action necessary to achieve specified sorts of performances (Bandura, 1997) and (Bandura, 1986). Over two decades of study, the validity of self-efficacy as a predictor of student motivation and learning has been firmly established. It is suggested that self-efficacy is a significant predictor of student motivation.

### **Relationship Between Self-efficacy and Academic Performance**

Education is now widely regarded as the primary key to a nation's moral, cultural, political, and socioeconomic progress. In the previous two decades, nations that have adopted substantial educational endeavors have achieved revolutionary gains and accomplished miracles (Shah, 2009). Nowadays, most individuals compete with one another in order to succeed in their academic fields. However, some elements, such as self-efficacy, have an impact

on academic achievement. Individuals' self-efficacy views differ, fluctuate under different conditions, and can alter over time. Furthermore, it improves performance in academics, the workplace, and many other areas. Indeed, educators are particularly interested in the links between self-efficacy and academic performance (Witt-Rose, 2003). Self-efficacy for self-regulation, according to Klassen et al., (2008), indicates an individual's conviction in his or her ability to apply a range of learning techniques, avoid distractions, finish homework, and engage in class learning, and has been shown to impact academic accomplishment. Furthermore, according to Yusuf (2011), Albert Bandura pioneered the notion of perceived self-efficacy in 1977, which impacts and alters human behavior. Furthermore, students who were able to initiate their study activities with self-efficacy and develop applicable self-learning strategies are more likely to progress and achieve better because non-self-regulated students are not truly engaged in the learning process and may be subjected to any type of shallow knowledge and low academic achievement (Zimmerman, 2000).

Aside from that, one of the major questions highlighted in educational research is the causal influence of self-efficacy on academic accomplishment. When studies strive to determine if mastery, linguistic emotional, and psychological factors are the key causes of generating self-efficacy, the causality impact of self-efficacy becomes more intriguing. Thus, Bandura proposed four types of experience or influencing factors that might be used to enhance self-efficacy: mastery experience, vicarious experience, verbal persuasion, and physiological arousal. According to the study, mastery experience, or the perceived consequence of one's prior performance, is the most influential. Students do tasks and activities, evaluate the outcomes of those actions, utilize these interpretations to form beliefs about their capacity to perform subsequent tasks or activities, and behave in accordance with those beliefs. Furthermore, vicarious experience, often known as modeling, refers to the beneficial impacts on efficacy beliefs that come from witnessing how other individuals accomplish (Bandura, 1997). Zhu et al. (2011) experimentally evaluated these assertions with middle school children and found substantial relationships between mastery experiences, vicarious experiences, verbal persuasions, physiological arousal, and self-efficacy, supporting the validity of self-efficacy theory. Recognizing that self-efficacy influenced academic performance, this study was designed to investigate the link between self-efficacy and academic performance, as well as the factors that influenced self-efficacy. Furthermore, academic accomplishment has been differently characterized as either a degree of competency gained in academic work or formally acquired knowledge in school courses, which is frequently reflected by the percentage of marks received by students in examinations (Kohli, 1975).

Given that self-efficacy has an impact on academic achievement, the elements that influence self-efficacy should be investigated. Typically, students are easily influenced by peers, and become involved in emotional control, psychological arousal, and so on. There are direct experiences/mastery experiences and indirect experiences/vicarious experiences offered by social or models, verbal persuasion, and individuals' physical and emotional conditions among pupils, according to Bandura (Bandura, 1995). Direct experiences are the most beneficial for self-efficacy beliefs. While a person may build a strong confidence in self-efficacy as a result of his own successes, his failures may have a detrimental impact on these views. Efficacy perceptions based on previous experiences have an impact on future success or failure status and, as a result, academic motivation. Students with strong self-efficacy views are more eager

to participate in learning activities than students with low self-efficacy beliefs. Efficacy perceptions based on previous experiences have an impact on future success or failure status and, as a result, academic motivation. Students with strong self-efficacy views are more eager to participate in learning activities than students with low self-efficacy beliefs.

### **Discussion**

The relationship between academic performance, student engagement (cognitive, emotional, and behavioral), academic motivation, and self-efficacy was studied in middle and high school students in this study; the analysis was followed by a study to determine whether student engagement (cognitive, emotional, and behavioral), academic motivation, and self-efficacy predict academic performance variances in adolescents. According to a study of the literature, several earlier research was undertaken with either high school or middle school pupils. Wang and Holcombe (2010), for example, included only middle school students in their study, whereas Hepinger's study included only high school students. Our literature search also found some distinctions between the behavioral involvement seen in our study and the behavioral engagement exhibited in studies presented in the literature. The measure used for this study assessed behavioral engagement, often known as involvement in school activities, as "*regular attendance, adherence to school regulations, and not getting into trouble in school.*" A study of the literature reveals that the research findings are to be expected. Academic achievement is influenced by students' strong faith in their academic abilities. Furthermore, when compared to other academic performance variance-predicting factors, self-efficacy is the most powerful predictor.

### **Conclusions**

The aim of the current study sought to assess the extent to which student engagement, academic self-efficacy, and academic motivation influence academic performance also the relationship between self-efficacy and academic performance. A comprehensive analysis of the study data led us to the conclusion that self-efficacy is the biggest predictor of academic performance, or academic success, in middle and high school pupils. Academic motivation and cognitive engagement, a subdimension of student involvement, were also found to predict academic achievement in the current study. It also revealed that the two are connected. Students who trust in their own ability and willingness to behave academically will be able to push themselves to study and so perform the cognitive processes necessary to help them succeed. It is recommended that teachers and parents both, should try to enhance the self-efficacy and motivation together, in order to increase academic performance in students. Students should also do additional work in order to boost their self-efficacy, and increase their motivation. However, schools setting should be designed to help the, achieve it. Furthermore, the role of psychologist in schools can be an important addition to achieve this goal and support student's development, as they can help to boost student's self-efficacy levels, and therefore better prepare them for work. Future studies can try and identify students self-efficacy and motivation levels, and through a longitule study can understand individuals work performance in the market.

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## Retranslation of Literary Works in Albania

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### Introduction

Retranslation has a diachronic and synchronic aspect

Did retranslations improved or worsened the original?

Are retranslations complete different from earlier translation?

The translation gets old, whereas the original remains unchanged. Albanian language has changed. It has become more open to words describing new phenomena that were missing while trying to transmit feelings, situations or events coming across in the works of greatest authors.

To translate the words or the spirit of a language? To translate the linguistic forms, lexical sign or the tradition codified within it? Can the tradition of someone read your tradition, as someone's language reads your language? This are the questions.

But, should we translate the translated? This is the nowadays question.

Translation is a "fight" between source language and target language, where at the end the target language must unveil the same values as the source language.

Language transformations in the course of the years may dictate the necessity of retranslations. Given the rapid change of languages, it is high time to consider retranslation of world literature masterpieces.

It is widely known as an universal rule : Translations get old, whereas the original remains the same.

As languages evolve, translations become dated, which explains why translations are «re-translated» so that they are updated and enriched linguistically. The translation gets old, whereas the original remains the unchanged. Translations need to be contemporaneous in order to keep pace with the language level of the recipients of any generation. Retranslations occur mainly because of the constant development of the target language. (Newmark 1988 : 13)

The definition of translation underlines the transmission to the reader of a text in a certain language with the linguistic means of another language (Ymeri 2015 : 40), but as long as linguistic means of the language change, we might find it necessary to re-translate these masterpieces.

The standard language of the 1970s (drejtshkrimi) has been subject of considerable challenges regarding the linguistic forms, not to mention the fact that some translations have been realized before that period. This is a good reason leading to the necessity of re-translation and it is high time for re-translation of some works. (Tupja 2007: 59)

### **Methodology**

Through a literature analysis, this work try shed light on translation process in Albania. With the help of examples from translations from various authors, we will offer a panorama of the translations and re-translations in Albania. The literary works taken into review are translated after the 60'ies.

This work will also focus on main reasons that make retranslation of the masterpieces in Albanian language a necessity.

Isabelle Collombat ( 21century boom of retranslations) : retranslation is motivated by a number of translatory concerns among which: the ageing of previously translated texts, ideological considerations in connection with changing cultural norms and never ending search for the perfect translation.

Retranslation Theory shall not only focus on different historical periods, but also take into consideration different cultures and literary contexts. Retranslation of the same work in communism and in democratic Albania.

### **Language Norms**

Most of the translations have been completed before the Albanian Orthography Congress. These works do not meet the standards defined in the Congress.

A big number of world masterpieces have been translated into Albanian from Fan Noli, who has used an informal Albanian language to bring these works closer to common people.

An example of this fact is the translation of Don Quixote into Albanian, where he has even translated the names of the characters into Albanian real people. The first volume of this book is translated by Noli, whereas the second by another prominent Albanian translator Petro Zheji.

Regarding types of translation, we can mention the free translation of Noli, using re-creation, Turkish words and Southern Albanian dialect. Whereas, Robert Shvarc used to put his body and soul into his translations, while using re-creation type of translation.

The line of the poem "Raven" by Poe :

*Once upon a midnight dreary , while I pondered wean and weary,*

has several versions in Albanian language :

*“Një mesnatë të bezdisur tek kndonja i zalisur”*

*“Një mesnatë të zymtuar, mëndjevrarë, shpirtlënduar*

*“Një mesnatë të trishtuar, po mendoja i drobitur, i dërmuar.*

Some translations include Albanian dialect words which are not familiar to everyone and a standard language is necessary for making it clear to everyone.

The poetry of Charles Baudelaire “A une passante” translated by Noli in Albanian sounds as following :

Ja shkrepni dhe u err. Moj flutur **e farosur**

Qe me veshtrimin tent me bere **flag e furre**

S’te shoh me vale vec ne jeten **e pasosur?**

Meanwhile the famous saying “Të rroç a të mos rroç, kjo është çështja” translated with the help of the category of participle which in Albanian has been eliminated and creates an ontological clash in meaning related to the verbs “to be/ to live”, accompanied with a southern dialect form.

### **Political regime**

State-owned publishing houses that used to censure several works, due to ideology of the communist regime.

Some works have been translated into Albanian in their complete form.

Due to ideological views, the Tess of Débervilles has been shortened. There are 20 pages missing, removed due to some religious point of views. The same happened to other classics, such as the Picture of Dorian Grey. **Kafka, Proust, Wild, Kamy, Sartre, Beckett e Ionesco; Borghese, Sabatto, Babel, Bell, Hesse, Grass or Bulgakov.**

But, when it comes to re-translation of classics, we need to have brilliant translators, who can be at least compared to the translators who enabled us to feel the taste of the world masterpieces. Nevertheless, we do not have any guarantee that the second translation would be the best. (Kokona 2003: 7)

Good literary works are written in powerful language and are psychologically penetrating. Different translators, no matter the time or historical periods, first as readers of the original work, may have different interpretations of the same work. Better or worse.

Nevertheless, we have come across several retranslations of one novel into the Albanian language, so far, there are three translations of Ana Karenina of Tolstoy. Each of them characterized by language means used in the period they were translated and appreciated by their readers.

Or the dramatic loss of the thrilling lines of Poe in the Raven

*And the silken, sad, uncertain rustling of each purple curtain  
Thrilled me- filled me with fantastic terrors never felt before;  
Era frynte qe perjashta,  
Rrihte perdet e mendafshata  
Dhe me ngjethte dhe me derthte  
Tmerre qe s'i ndjeva kurre.*

Another issue is the translation of these works from a second language, not the original. The translator must drink spring water, not the water coming from a secondary resource.

The necessity of re-translation of the world literature masterpieces becomes more obvious when this classical culture of new and old times needs to have a more vivid communication with the source culture.

Re-translation is like re-playing a classical symphony from an orchestra with new instruments. It seems like they make it more vital and becomes popular even among young people.

Different types of readers are identified with the translators that sound good to them. This is suitable also for original. This process brings the original closer to contemporary standards, which may also justify the loss of first translation of the classical translation. (Jacobson 1959 : 134)

According to translator Edmond Tupja, it is necessary to be audacious. (Tupja 2007 : 59)

“Regarding re-translation of world classics, I believe - including the thesis of some other important translators - that a work of literature must be re-translated every 15 years, because first of all we experience a change in the taste of people, as well as a change of the way of writing and expression”, he says.

However, there are numerous debates surrounding the re-translation of literary classics. Nevertheless, the re-translation issue is complex and needs to be reviewed in several aspects.

## **Conclusions**

Great classical writers or poets, even though translated into Albanian by our writers and poets do not have the spirit and expression of nowadays level of Albanian literature language, because their translation product is certainly affected by the language development of the respective translation period. In this respect, the translations of Shakespeare, Poe, Cervantes have been translated with the potential means of Albanian language of '20 - '30- ies of XX-th century.

There are many pros and cons to retranslation. This work is an effort to provide another opinion in this respect. The analysis was focused on two main points : language norms and influence of political regime.

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## **Brown Seaweeds from Black Sea Coast as an Important Source of Bioactive Compounds of Interest for Human Health**

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### **Abstract**

For human nutrition, algae are important organisms that can offer essential compounds and new bioactive substances with pharmaceutical and medicinal value. Macroalgae contain nutritional elements such as lipids, proteins, vitamins and minerals and they are used as food supplements because they are known to be high in mineral content. There are a lot of nutritionally compounds that can be identified in algae such as polysaccharides, polyphenols, diterpenes, sterols, carbohydrates, peptides, polyunsaturated fatty acids, pigments and dietary fibers. Nutraceuticals are confirmed to be used as medicines because they are a good protector against chronic diseases and they have physiological benefits. Algae bioactive compounds could be used as an anticoagulant, antioxidant, anti-inflammatory, antibacterial, antimicrobial, antifungal, anticancer, antiviral, antidiabetic, antiobesity, antihypertensive and hypercholesterolemic nutraceuticals. Although only some of the algae have been studied properly for their chemical composition and properties, they are a considerable biological resource with ability for use as a raw material. In this paper the compounds from red and brown algae from the Romanian seaside are evaluated as sources of biologically active ingredients with benefits in human health.

**Keywords:** brown algae, antioxidant, *Cystoseira barbata*, polysaccharides, dietary fibers, fucoidan.

### **Introduction**

One of the most popular organisms that can be found on earth are the algae. They have applications in agricultural, cosmetic and pharmaceutical industries because

they have a wide variety of bioactive compounds and they have a rich chemical composition [1]. Corresponding to many studies, a lot of bioactive compounds extracted from algae such as PUFAs, polysaccharides, peptides, pigments, carbohydrates, polyphenols, vitamins and phytosterols have implicated much interest in recent years for the significant chemical and biological diversity [2]. Anti-inflammatory, antimicrobial, immunostimulatory and immunomodulatory are some of the properties that these compounds had recorded. Both the recent studies about their beneficial properties in human health and according to their nutritional composition, has highlighted the growing interest to incorporate algae into human diet [3, 4]. The Black Sea is known to be one of the richest seas with an impressive fauna containing green, red and brown seaweeds, which have not been fully studied for their properties and for their bioactive compounds. For hundreds of years the brown algae have been used by humans. In the recent studies it was highlighted that brown algae are very important sources of bioactive compounds with great nutritional value and they could be considered as functional foods with health benefits [5]. *Cystoseira* genus includes approximately 294 species [6]. *Cystoseira barbata* (Phylum: *Ochrophyta*, Class: *Phaeophyceae*, Order: *Fucales*, Family: *Sargassaceae*) is a genus of brown algae that can be found in the Romanian seacoast of the Black Sea. This brownalgae is defined by apical regions and vastly differentiated basal and catenate pneumatocysts are present too. In time the principal laterals come to be proportionally elongated, but the old plants have an elongated main axis. They have strong flattened lower parts into 'foliar-expansions' or basal leaves. Receptacles are the fertile parts which carry conceptacles and these can be normally situated at the tips of the branches. The apical and basal regions are notably differentiated. This brown seaweed can float in strong currents due to the aerocyst or air vesicles which keep the organism erect [7]. After the investigation of other members of the genus, *Cystoseira* has been discovered to include many biological activities such as: antiprotozoal, antibiotics, anti-inflammatory, antioxidant and cytotoxic [8]. An important source of polysaccharides is represented by the algae, notably the brown ones. The polysaccharides can be found commonly in nature, and these are omnipresent biopolymers. These can be determined in different types. Because of the structural differences, they can have distinct physical and chemical properties. Polysaccharides are nontoxic, biodegradable biopolymers. The sulfated polysaccharides are another essential group. The brown algae are also rich in soluble and insoluble polysaccharides, known as dietary fibres. The soluble polysaccharides that can be found in the brown algae are, fucans, alginates and laminarins. The sulfated polysaccharide that is principally composed of fucose interconnected by  $\beta$  (1,3) glycoside bonds, alternating  $\beta$  (1,4) and  $\beta$  (1,3) bonds and rarely  $\beta$  (1,2) bonds, is the fucoidan. Its sulfate content is situated between 5% and 38 and it can contain, apart from fucose, other monosaccharides, including xylose, galactose, mannose, glucose, uronic acids and rhamnose [9]. The studies have demonstrated that fucoidan presents biological properties such as anti-inflammatory, antioxidant, liver



protection [10] and antitumor [11] and it continues to be the most researched algae molecule. It has an important potential in the production of cosmetics, functional foods and pharmaceutical products. A small glucan obtained from the brown algae is the laminaran, which has a molecular weight of 1–10 kDa [12]. The two types that have been defined are the one with the chains terminated by D-glucose residues (G-series) and the other one with the chains that are terminated by D-mannitol residues (M-series). These laminarans have various advantages like biodegradability, low cellular toxicity and high biocompatibility [13].

### **Algal Material**

The algal biomass, see Fig.1 that was collected manually has to be exposed to a pretreatment which is represented by repeated washings with drinking water and in the end with distilled water. On the fresh product only the macroscopic and the microscopic examinations can be performed [14]. For other types of examinations, the marine material has to be dried at temperatures between 25-35 degrees [15]. After that, the dry algal biomass has to be grounded to a powder and to use a sieve of 0.5 mm in order to obtain an uniform powder. May-november is the period that the algal flora was collected from the Black Sea coastline, from water at a distance of 5-25 m from the shore, from the areas of Constinesti, Mangalia, Eforie Sud, Eforie Nord, Navodari, Vama Veche and Constanta Casino.



Fig. 1. Brown algae in algal colony

### **Macroscopic and microscopic examinations**

Macroscopic and microscopic examinations have to be applied on the algae selected for analysis. The first step in the research of the known or untested products was represented by the macroscopic examination [16]. In order to notice its dimension, appearance, taste, colour and smell, this part to be done through the whole plant examination (phylloid, rhizoid, celluloid) with the human eye, as well as with a

magnifying glass [17]. The materials that are used in this examination are fragments of thallus from the red seaweed, a Microscope and Micros photomicroscope (10/0.25), forceps, blades, spatulate needles and Petri dishes. The microscopic exam of the collected algae was realized directly on the fresh thallus fragments which were sliced, because the macrophytic algae species have single-cell or two-layer thallus and brought into a Petri dish with distilled water [18].

### **Chemical composition determination**

*Determination of humidity and ash* - The humidity was determined in the termoregulator oven by drying the algae at 105 °C. After 12 hours was done, the calculation of the algae calcination at 550 ± 10 °C was performed. The organic substance was calculated by the difference between 100% and the sum of the values (%) of humidity and ash [19].

*Determination of the sulfate content* - Quantitive chemical analysis was used to determine the sulfate content. According to the national standard STAS 3069-87, the analysis for the determination of sulfates was realized spectrophotometrically [18].

*Determination of protein and total nitrogen* - Using the UdK DK6 digester equipment was determined the total nitrogen and protein content of the algae, using the Kjeldahl method. In the presence of sulfuric acid under the catalytic action of selenium and mercury the mineralization was done. Then the alkalization was realized. After that, the ammonia was steam driven and captured in a boric acid solution which was titrated with hydrochloric acid. The result was expressed as a percentage [20].

*Determination of lipids* - The Soxhlet method was used to determine the lipids from the algae, an extraction method for 5 hours with dichloromethane as solvent. Gravimetrically the lipid content was determined and the results were expressed as a percentage [21].

*Determination of carbohydrates* - Using 15% acetic acid solution, the carbohydrate extraction was completed. With the Dubois method (1956), at a 190 nm maximum absorption, the carbohydrate content was determined spectrophotometrically. An Aquamate 8000 UV-VIS spectrophotometer was used, which uses spectral bandwidth of 1.8 nm and selectable wavelengths of 190-1100 nm. The results were calculated based on a standard glucose calibration curve [19].

*Determination of total dietary fiber* - Hipsley used the term "dietary fiber" to involve indigestible constituents of plants that compose the cell wall of plants, known to include hemicellulose, cellulose and lignin. Based on resistance and edibility to digestion in the human small intestine, the definition of dietary fiber, which has been extended by Trowell et al. became principally a physiological definition. In the definition are included indigestible polysaccharides such as modified cellulose, gums, mucilages and pectin and non-digestible oligosaccharides. The method used was the official method AOAC 985.29 "Total dietary fiber in food and the enzymatic-

gravimetric method" [20]. The method was extended to allow total measurement of insoluble and soluble fiber in foods (AOAC official method 991.43) and various other modified fiber methods approved by AOAC International [20, 22].

### **Identification of phenol acids by HPLC**

The method that was used to identify the phenol acid was HPLC-DAD. According to the method that was defined by Goupy [23], the HPLC analysis of phenolic compounds was determined in the ethanolic extract of marine brown algae. Using high performance liquid chromatography, the detection was conducted. That was equipped with auto sampler, quaternary pump, auto sampler, multi wavelength detector set at 280nm, 330nm and column compartment set at 35°C. Chem 32 integrator computed and monitored automatically the peak areas and the retention times. The retention time and standard deviations of phenolic standards chosen were: protocatechuic acid (3.130±0.008), pyrogallol acid (0.910±0.025), ferulic acid (8.865 ± 0.06), 4-amino-benzoic acid (3.455±0.005), chlorogenic acid (3.501±0.015), gallic acid (0.990±0.03), vanillic acid (6.919± 0.05), caffeic acid (8.281±0.07), benzoic acid (9.468±0.098), salicylic acid (15.952±0.051) and elagic acid (15.303±0.03), and for which a 0.05 mg/mL concentration was settled.

### **Extraction of sulfated polysaccharides**

Using the method of Ermakova et al. with few modifications, the separation and isolation of water-soluble polysaccharides were realized. Under constant stirring (250 rpm) for 24h at 30 °C, the powdered algal biomass was treated with acetone-methanol (7:3, 500 ml), twice and chloroform (300 ml), twice. Under constant stirring (250 rpm) for 2h at 60 °C, the dried and defatted algal biomass was extracted twice with 0.1 M HCl (500 ml). Using two volumes of absolute ethanol, the supernatant obtained by centrifugation for 10 minutes at 5000 rpm was concentrated and precipitated [24]. The pellet was dissolved in distilled water after centrifugation for 10 minutes at 8000 rpm and 4 °C, dialyzed (cut-off 12–14 kDa) and lyophilized to yield the *C. barbata* sulfated polysaccharides.

## **Results and discussions**

### **Macroscopic and microscopic examinations**

This examination shows that *Cystoseira Barbata* is a large brown monoic alga, 1.5 – 2 m, which grows in the Black Sea on a rocky substratum. It has a thalle with various ramifications, fixed on rocks through a rhizoid as a dislike clip bolt. A lot of cilindric sticks stem from the clip bolt, on which a big number of primary and secondary branches are being developed, flat or cilindric, along which chains of air-bearing vesicles. Shaped as a conic cilinder or as a cilinder, on the top of the branches the receptacles develop. The conceptacles are situated in the receptacles, on the bottom of which various eggs are found, each with a pedicel cell and a single eggsphere. A new plant can form when the eggspheres, eliminated into sea water, merge with the

anteroids. The microscopic analysis of the thalli of the brown algae taken in the study showed that *Cystoseira barbata* has a thali consisting of a single layer of cells. In *Cystoseira barbata*, the cells are elongated, arranged in longitudinal rows, they have a membrane on the outside that contains a small amount of cellulose. Inside the cell there is a nucleus, numerous brown chromatophores with pyrenoids and numerous vacuoles.

### Result for the chemical composition determination

The chemical composition of *C. barbata* seaweed is shown in products and affects stability of food materials. The moisture content of *C. barbata* was 14.45% and the ash content of the brown algae *C. barbata* was 16.3%. Comparable ash contents were reported by Frikha et al. [25] for *C. barbata* (14.24%) and by Marinho-Soriano et al. [26] for *Sargassum vulgare* (14.2%). Generally, the brown seaweed has a higher ash content than red and green algae [27]. *C. barbata* revealed a total protein amount of 17.9%, which was higher than other seaweeds determination [28]. *C. barbata* exposed a high level of dietary fibers (TDF= 59.875%), that is why algae are known as a great source of polysaccharides, which could signify a high level of soluble and insoluble dietary fibres. This percentage of dietary fiber from *C. barbata* was higher than the one recorded for the brown seaweeds *Fucus vesiculosus* (50.09%), *B. bifurcata* (37.42%), *Undaria pinnatifida* (33.58%), and *H. elongata* (37.14%), L. digi- S. Sellimi et al [32] [33]. The content of lipids present in this brown algae was relatively low, but *Himanthalia elongata* (L.), *L. saccharina*, *Mastocarpus stellatus* and *Gigartina pistillata* seaweeds showed significantly lower contents of lipids (0.3-0.9%) [28]. In Tabel 1 are presented all the results for this determination. The seaweeds are still an important source of health promoting PUFAs compared with plants and animals, even though they have a total content of lipids generally low.

**Table 1. Chemical Composition of algae *Cystoseira barbata* from Romanian Black Sea coast**

Parameters	<i>Cystoseira barbata</i>	Literature values	data
Ash%	16.3±1.73	12.4-29.9	
Moisture%	12.3±0.42	12.6-18.5	
Total nitrogen%	2.765±0.34	-	
Sulphates%	70.91±1.94	65.3-70.5	
Lipid%	1.65±0.54	1.5-3.6	
Protein%	17.9±2.11	8-17	
Carbohydrate%	59.9±1.06	59.1-61.5	
Total dietary fiber%	59.875±1.66	50.3-60.5	
Soluble fiber%	30.3±1.33	27.2-30.5	
Insoluble fiber%	28.76±1.26	24.2-32.6	

## HPLC analysis of phenol compounds

The phenol acids in the extracts were identified by HPLC- DAD. In Table 2 are presented the individual phenol concentrations from *Cystoseira barbata*, determined by HPLC – DAD and they are expressed in mg/100 g f.w. The highest quantity that *Cystoseira barbata* from the Romanian Black Sea coast contains is the vanillic acid (99.5 mg/100 g f.w.), followed by benzoic acid (65.7 mg/100 g f.w.) and feluric acid (54.5 mg/100 g f.w.).

**Table 2. The individual phenol concentrations determined by HPLC - DAD in brown seaweed from the Romanian Black Sea coast [8]**

Type of acid	Mean Value±SD mg/100 g.f.w.	Percentage
Pyrogallol Acid	4.2±0.05	1.10
Protocatechiuc Acid	7.12±0.01	1.85
Gallic Acid	3.5±0.03	0.91
4-Amino-benzoic Acid	5.2±0.09	1.35
p-Hydroxy-benzoic Acid	26.9±0.06	6.97
Chlorogenic Acid	5.3±0.05	1.37
Caffeic Acid	21.2±0.06	5.49
Vanilic Acid	99.5±0.08	25.8
Benzoic Acid	65.7±0.06	17
Feluric Acid	54.5±0.01	14.13
Ellagic Acid	5.6±0.02	1.45
Salicylic Acid	10.5±0.03	2.72
Total	309.22	80.14

The smallest quantities were for 4-aminobenzoic acid (5.2±0.09 mg/100 g f.w.), pyrogallol acid (4.2±0.05 mg/100 g f.w.) and gallic acid (3.5±0.03 mg/100 g f.w.). From the total phenolic content identified, the phenolic acid from hydroethanolic extract of the brown algae, quantified by HPLC-DAD, was 80.14%. Salicylic acid (10.5 mg/100 b f.w.), caffeine (21.2 mg/100g f.w.) and p-hydroxybenzoic acid (26.9 mg/100 g f.w.) were another important compounds that were identified. The remainder phenol acids which were identified and quantified through HPLC-DAD, were found in smaller amounts.

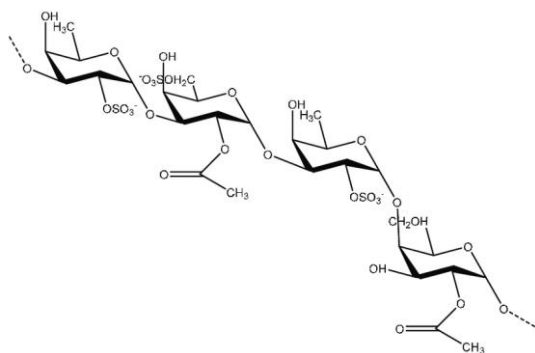


Fig. 2. The chemical structure of fucoidan

## Results for the sulfate polysaccharides extraction

### Fucoidans

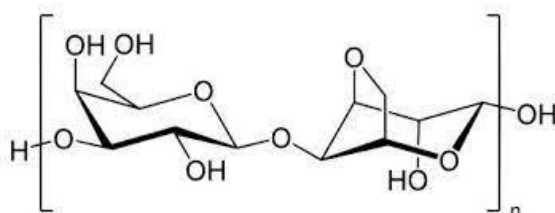
Fucoidans are sulfated polysaccharides that can be determined in brown algae, see Fig.2. Even if most of them are essentially made of sulfated  $\alpha$ -L-fucose residues, they may also contain xylose, mannose, galactose, uronic acids and acetyl groups, sometimes in substantial amounts. In other algae or terrestrial plants such polysaccharides are absent [30]. Algal fucoidans are a virtually non-toxic bioactive polymers and they can be found in natural sources in high amounts [31]. The most interesting property is their heparin-like anticoagulant and antithrombotic activity, but many other activities, such as anti-inflammatory, antiviral, antitumor, antiadhesive, antiangiogenic, etc., are promising for new drug design [32]. Depending on the species, the harvest period and the part of the thallus, fucoidans usually constitute about 5–10% of dry seaweed biomass [33]. By extraction of algal biomass followed by oxidative decoloration and determination of this sugar with specific color reaction for 6-deoxyhexoses or by using GLC after acid hydrolysis, the fucoidan content may be evaluated by determination of L-fucose. Their biological activity is dependent on anatomical part of the algae, species, extraction procedures, growing conditions and locations and analytical methods and each of these properties is associated with a specific fucoidan [34].

### Laminarans

Polysaccharides that are commonly distributed in nature are the one built up predominantly of 3-linked  $\beta$ -D glucopyranose residues [35]. Due to the ordered triple helical molecular conformation, high molecular weight glucans of this type are insoluble in water and therefore serve as structural components, for example, in fungal cell walls. Laminarans are known as similar glucans of lower molecular mass function as storage polysaccharides in brown algae, see Fig.3. Their content can be as high as about 35% of dry biomass in the algae and this percentage is dependent on the environmental conditions and the species. Percival and McDowell monograph

reviewed the results of structural investigations of laminarans by classical chemical methods. Containing a backbone of about 20–30 (1 → 3)-linked β -D-glucopyranose residues with some single β -D-glucopyranose stubs attached to the main chain by (1 → 6)-linkages and differing slightly in the degree of branching, polysaccharides from different species were shown to be very similar. The two types that have been defined are the one with the chains terminated by D-glucose residues (G-series) and the other one with the chains that are terminated by D-mannitol residues (M-series). The biological activity can be modified or enhanced by the chemical modification of laminarans. In this way, it has been demonstrated that laminar sulfate causes several plant defense mechanisms and inhibits the proliferation of endothelial cells. Sulfated alkyl laminara-oligosaccharides have potent inhibitory effects on AIDS virus infection [36].

Fig. 3. The chemical structure of laminaran



Biodegradability, low cellular toxicity and high biocompatibility are some of the advantages of the laminarans [37]. The bioactivities that have been identified for the laminarans were anti-inflammatory, anti-apoptotic [38], antitumor, immunoregulatory, antioxidant activities and anticoagulant [39].

### Alginate acid and alginates

A polysaccharide composed of two different uronic acids, glucuronic and mannuronic, are one of the principal active compounds of edible brown algae. They act like prebiotics and as potential immunomodulators, supporting the production of short chain fatty acids, because the alginates can not be digested by human enzymes [40]. The alginates have been used for the treatment of gastric reflux, stomach ulcers and heatburn and also as tablet excipients. The absorption, swelling and hemostatic properties of alginates are involved in their mode of action against such health conditions [41].

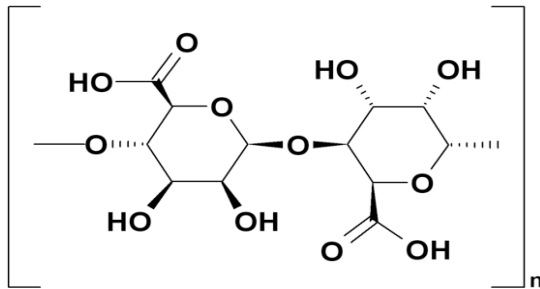


Fig. 4. The chemical structure of the alginic acid

These characteristics also support the use of alginate in wound treatment. They have been linked to many other health effects and their absorption and swelling characteristics. For example, binding of glucose and  $\alpha$ -amylase inhibition, which reduce post-prandial glucose levels. Alginates have the property of reducing the level of cholesterol and the level of lipids, because they have the ability to absorb bile acids and lipids. Alginic acids are linear copolymers of two linked uronic acid residues (1  $\rightarrow$  4),  $\alpha$ -L-guluronic (G) and  $\beta$ -D-mannuronic (M) acids, see Fig.4. They are present as components in the intercellular matrix and cell walls in all known brown algae in the form of salts mixed with several cations such as Na<sup>+</sup>, K<sup>+</sup>, Mg<sup>2+</sup> and Ca<sup>2+</sup> [42]. The polymer is extracted in the form of easily soluble sodium salt by treatment at high temperature with sodium carbonate solution, the algal biomass being treated beforehand with dilute acid to remove the polyvalent cations [43]. Sodium alginate can be precipitated with ethanol, insoluble calcium alginate can be obtained by adding calcium chloride and alginic acids are generally precipitated after acidification of the extract. The alginate content of algae can reach up to 40% of the dry algal biomass and depends on the part of the thallus, the harvest period and the species [44].

## Conclusions

Algal biodiversity produces a vast resource of different polysaccharides. Some have been characterized by chemical and physical methods of structural analysis and have found a wide practical application, such as agar-agar and carrageenans from red algae and alginates from brown algae. Several chemical and enzymatic procedures have been developed to improve their practically valuable properties, therefore mariculture seems to be the main source of raw materials for the production of these polysaccharides in the future. This is true even for fucoidans from brown algae, which are the most intensively studied group of biologically active polysaccharides. Their biological activity depends on the composition of monosaccharides, degree of sulfation, conformation and fine structure of polysaccharides. For a high anticoagulant activity of sulfated fucans, the appropriate spatial arrangement of the sulfate groups is necessary, and also the distribution of the molecular mass has a particular importance on the biological properties of fucoidans. The results of this study indicate that Black Sea brown seaweed species *C. barbata* may be a good source



of fucoidan. The data also confirmed the long known facts that brown algae cell wall PS are complex, and that their yield and chemical composition are significantly influenced by the algae species and the conditions used to extract them.

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## **Consumption of Insulins in Primary Health Care in Albania during 2010-2020**

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### **Abstract**

**Aim:** evaluation of trends in out-of-hospital utilization and to prescribe of Insulin in Albania using the Anatomic Therapeutic Chemical Classification/ Defined Daily Dose -(ATC/DDD methodology). **Methods:** The study was retrospective, and we analyzed the data collected from Health Insurance Institute (HII) of these drugs classes in the primary health care in Albania during 2010-2020. The data about the consumption of drugs were expressed as a number of Defined Daily Dose (DDD) /1000 inhabitants/day. For all the period under study 2010-2020, there were collected and analyzed data of import and domestic production of drugs, which represent the real consumption of drugs in the country. These data were subsequently included in a comparative analysis with the utilization data according to the Health Insurance Institute. **Results:** The consumption of all insulin were 3.49-10.66 DDD/1000 inhabitants/day (respectively 2010-2020). The consumption of insulin fast-acting were 1.58-4.93 DDD/1000 inhabitants/day (respectively 2010-2020). The consumption of insulin intermediate-acting were 0.56-1.06 DDD/1000 inhabitants/day (respectively 2010-2020). The consumption of insulin intermediate-acting combined with insulin fast-acting was 1.00-1.46 DDD/1000 inhabitants/day. The consumption of insulin long-acting was 0.34-3.21 DDD/1000 inhabitants/day. **Conclusions:** There is an increase in Insulin use from HII covering but still low values in comparison with other countries.

**Keywords:** Drug utilization DDD, Insulin

### **Introduction**

Diabetes mellitus (diabetes) is a chronic and potentially life-threatening condition where the body loses its ability to produce insulin, or begins to produce or use insulin less efficiently, resulting in blood glucose levels that are too high. Over time, blood glucose levels above the normal range can damage your eyes, kidneys and nerves, and can also cause heart disease and stroke.

With type 1 diabetes, the body does not make any insulin and therefore insulin has to be injected regularly every day to stay alive. With type 2 diabetes, the body does not make enough insulin, or the insulin that is made does not work well. Insulin injections are sometimes needed to manage blood glucose levels. Insulin is grouped according to how long it works in the body. Rapid- or short-acting insulin helps reduce blood glucose levels at mealtimes and intermediate or long-acting insulin helps with managing the body's general needs.

Insulin therapy is an essential part of diabetes management; all type 1 and most type 2 diabetes patients require insulin at some stage. Drug utilization studies using administrative pharmacy claims data can provide useful insights into the prescribing patterns and patient medication-taking behavior in typical usual-care settings [Okano GJ 1997, Venturini F 1999]. Thus, pharmacotherapy has the potential for significant clinical, economic, and humanistic impact. For these reasons takes a great importance the evaluation of drug utilization parameters associated with pharmacological management of type 1 and two diabetes among members of a large drug-insured population.[ Kakariqi et al. 2016]

### **Materials and Methods**

The data were obtained from the Health Insurance Institute (HII) [<http://www.fsdksh.com.al>, *last accessed July, 2022*]. All data were collected and analyzed reflecting the ambulatory and outpatient use for the period 2010-2020. The analysis included the total number of prescriptions, and quantities of drugs. The data about the population were obtained from the Institute of Statistics (INSTAT) [<http://www.instat.gov.al/en> *Last accessed July, 2022*]. The data about the consumption of drugs were expressed as a number of Defined Daily Dose (DDDs)/1000inhabitants/day. All drugs were classified by groups of Anatomic Therapeutic Chemical Classification (ATC).

#### *Data on real consumption (import and domestic production)*

For all the period under study 2010-2020 there were collected and analyzed data from the import and domestic production of the drugs, [<http://www.dogana.gov.al/english/> *Last accessed July, 2022*] which represent the real consumption of drugs in the country. It was noted that the increase in consumption from one year to another were small, e.g. the consumption from 2018 to 2020 (i.e. 3 years) was increased by only 1.96%. Consequently, in order to obtain an updated study, there were chosen the data of import and domestic consumption only for the last three years, 2018, 2019,2020, and those were involved in a comparative analysis with the equivalent consumption data according to HII. In order to minimize the effect of variations consumption-inventory balances from one year to another, it was calculated and put to analysis the annual average value of the three chosen years (on one hand that of the import and domestic consumption, and on the other hand that of HII).

## II. RESULTS

The insulin included in the reimbursement list for this period were insulin fast-acting, insulin intermediate-acting, insulin intermediate-acting combined with insulin fast-acting and insulin long-acting. The last one was involved in the scheme since 2008.

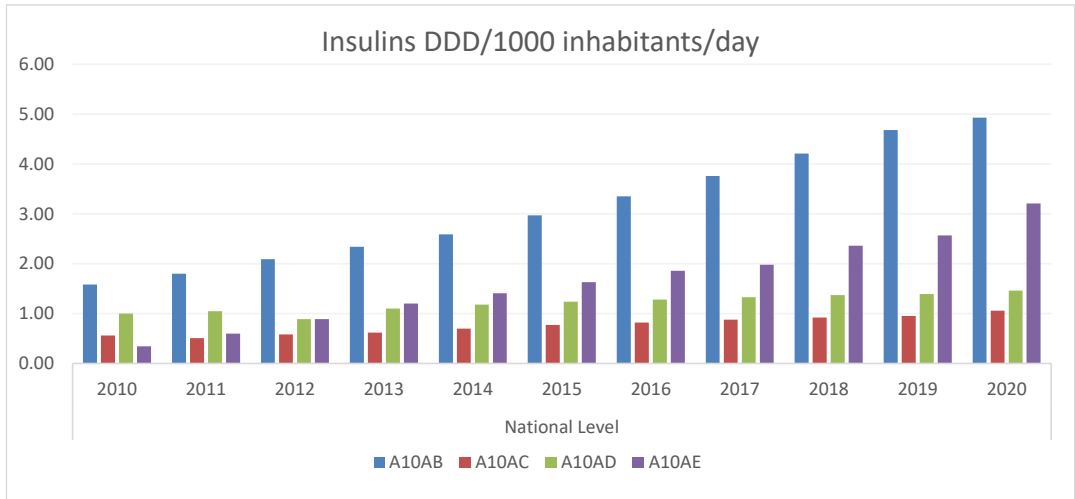


Figure 1 Annual average value of consumption of Insulin in national level in Albania

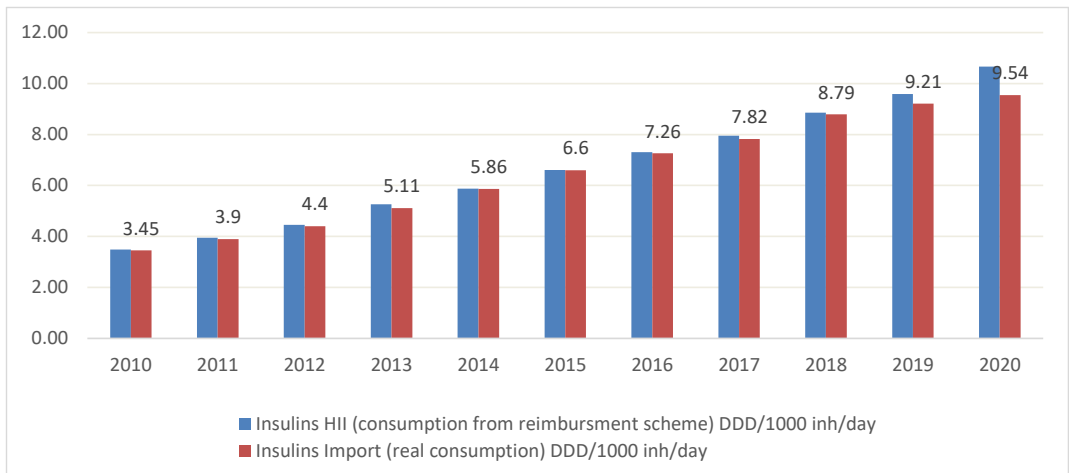
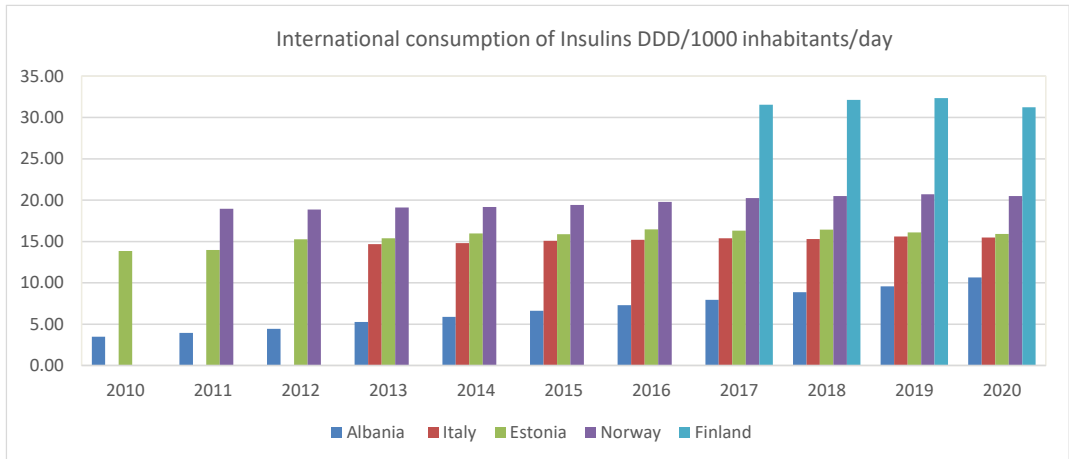


Figure 2 Annual average value of consumption of Insulin: consumption based on import (real consumption) [\*] versus consumption based on HII.



**Figure 3 International comparison in the consumption of Insulin (DDD/1000 inhabitants/day): Albania, Italy [7], Estonia [8], Norway [9-12], Finland [13-16]**

### III. DISCUSSION

Diabetes mellitus consists in a metabolic pathology with multiorgans damages, which is accompanied by high expenses of the health insurance system. The primary objective of the treatment is to keep good control over glycemic values. The lack of control over glycemia exposes the diabetes patient to a high risk of acceleration, worsening of the disease and appearance of micro- and macrovascular complications [Bocuzzi Associates, 2001].

In 2030, this number is expected to be double the current worldwide value [Wild S, et al 2004].

In Figure 1 can be noted an increase in consumption values that includes all insulin classes. The class with higher values of prescription are fast-acting insulin, meanwhile the class with the highest increase are long-acting insulin.

Aiming to understand better the real situation, we have included in the analysis the import data (representing the actual consumption) of antidiabetic drugs in the three latter years 2018, 2019, 2020.

In total, the use of insulin seems well-equilibrated, a fact evidencing that insulin are taken almost entirely under the reimbursement scheme. . The figures indicate that for rapid-acting insulin, the most used group of insulin, the consumption based on the HII is higher than the real consumption based on import data – a fact which cannot be true considering that import data include all drugs that are distributed in the primary health care service in our country. This finding can be explained with the fictive prescriptions by doctors for the most used group of insulin.



Therapeutic guides increasingly suggest AE insulin (with prolonged action) to reach a better control over diabetes type 2. In Albania, the family doctor has the right to prescribe AE insulin for diabetes type 2 patients, combined with oral antidiabetic, only for those patients that have gone through an acute myocardial infarction, cerebral insult and diabetic gangrene of the foot. The increase in consumption, especially of insulins, may reflect the better level of adherence of the doctors to the excellent guides that recommend intensification of the control to the glycemia levels [The American Association of Clinical Endocrinologists 2002 update; International Diabetes Federation 1999]. The increase in consumption of insulins may also be explained by the fact that the provision of insulin is necessary for a better control of diabetes type 2, in the cases where the diet and the oral hypoglycemic drugs do not result sufficiently.

### International comparison of consumption

As shown in Figure 3, the consumption of Insulin in Albania, as compared to other countries, is very low (consumption values presented for all countries, including Albania, are the official values as referred by the respective reimbursement systems).

In Portugal, studies suggest that Insulin and their analogs, have a consumption of 5.3 DDD/TID in 2005 and 15.4 DDD/TID in 2017 exhibited an annual average growth rate that was greater than the increase in the consumption of antidiabetic drugs. Ultimately, insulin and their analogs represented 17.4 % of the total consumption of antidiabetic drugs [ Moura, A.M., et al 2021].

### Conclusions

There is an increase in Insulin drugs use from HII covering during 2010-2020. The consumption of insulins seems well-equilibrated, a fact evidencing that insulins are taken almost entirely under the reimbursement scheme. Further studies need to be performed in the future to get more details about this topic.

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## Diet, Physical Activity and Body Condition of Young People

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### Abstract

The promotion of a healthy lifestyle and nutrition education programs that aim the correction of the improper nutritional habits, present one of the prior principles in the WHO educational strategies for human health. The goal of this study is the development of a database with regard to the nutritional teenagers attitude in its quantitative aspect (food consume) and qualitative (nutrition style) as a necessary demand for the planning of the nutritional and sanitary education interventions. In this study are enrolled 721 children aged 14-19 years old from the secondary schools district of Tirane (selected according to four categories: sex, age, economic level and residence zone) This study made possible for the first time the calculation of the average values of the daily energy intake for this age group and evaluation of the diet in qualitative aspects. The values of the daily energy intake are lower than the recommended norms of the WHO, mainly in the males/ rural zones and with a tendency for a non equilibrated nutrition in the population with scarce economic level. The diet is a typical Mediterranean one with some light deviations with regard to the frequent consumes of the bread, milk and fish according to the recommended values.

**Key words:** educational, prevalence, healthy food, qualitative life, nutrition.

### Introduction

Promoting a healthy lifestyle and nutrition programs on education in order to correct the wrong food habits, the principles represent a priority in health education strategies. C. Price, D. Cohen, P. Pribis, and J. Cerami (2017)

From recent studies on the mode of nutrition in adolescents show that their diet is characterized by nutrition mistakes that are recognized as responsible for the development of chronic diseases, especially cardiovascular. These data and the fact that the prevalence of obesity is essential in pediatric age is steadily growing, indicate the need for appropriate interventions undertaken in the field of nutrition. M. Racey, C. O'Brien, S. Douglas, O. Marquez, G. Hendrie, and G. Newton (2016)

An important factor determining the health is physical activity. Impact of inactivity is increased risk for developing chronic diseases. M.C. De Menezes, L.B. Bedeschi, L.C. Dos Santos, and A.C.S. Lopes (2016)

The emphasis is on new population that is prone to change their behavior and where future interventions are likely to give maximum effect in terms of health.

### Methodology

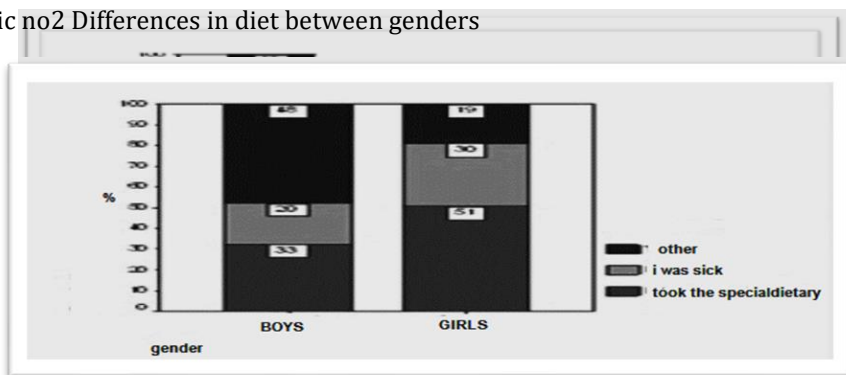
This is a transversal study in which were included 721 students aged 14-19 years. Participants in the study follow the education system in Tirana. Specific weight of the number of secondary school students in Tirana, the report defines urban / rural: 73% / 27%. This geographic distribution is conditional on drawings in order extrapolation of information for youth hanger subpopulation high school in Tirana, T. Forneris, at all. (2010) young age varies from 14 years old 19, but most (81%) belong 15-18 years age group. Pupils completed a detailed questionnaire on food consumption frequency. Consumption frequency questionnaires that consist in recording the frequency of food enterprises and their quantitative analysis, based on memory, aided by visual presentation of food portions with sides atlases. R. Amani, and M. Soflaei (2006) The basic principle of this method is that the average diet for a long period, eg. making weekly, monthly or yearly exhibition is conceived as an important in relation to the making of a few days. D. Wang, D. Stewart, Y. Yuan, and C. Chang (2015) The questionnaire is divided into three parts. The first part contains general data of the respondents. The second part includes questions about nutrition, foods and their frequency of consumption and the third part includes questions on physical activity of young people. All data analysis was performed using the statistical package SPSS (Statistical Package for Social Sciences, version 20.0) and M. Office Excel 2010. Pearson correlation coefficients were used to estimate the linear relationships of numerical variables, where they were considered statistically significant values  $p \leq 0.05$ .

### Results and discussion

It is noted that 69.2% of respondents to the question **If last year you eat out of the ordinary, give reason why?** Responded that they did not significantly change in the way of eating versus 30.8% who responded that they had changed the way of nutrition. This change in diet because women (51%) is more evident in comparison with males (33%) explained that even with the higher tendency of women to guard against obesity.

Graphic no1 Differences diet in total

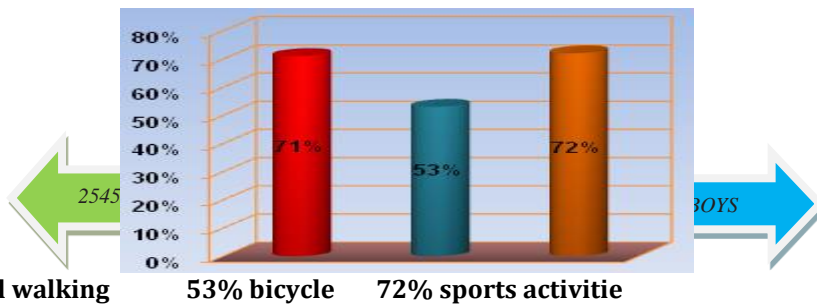
Graphic no2 Differences in diet between genders



For the first time this study provides data on the daily average ranging calorazhin: boys-2647 kcal / day, girls - 2545kcal/day, values according to town / village: 2619 / 2548 kcal / day, because this difference that the economic level that area exists between urban / rural areas in Albania. There is also a difference according to level of kalorazhit economic level of well-2666 kcal / day Average -2572 kcal / day Slender-2884 kcal / day, the trend values the highest level of young people that refer to weak economic security as a result of the biggest part of energy from cereals (mainly bread, diet food base that Albanian former -70% of the total calorific).

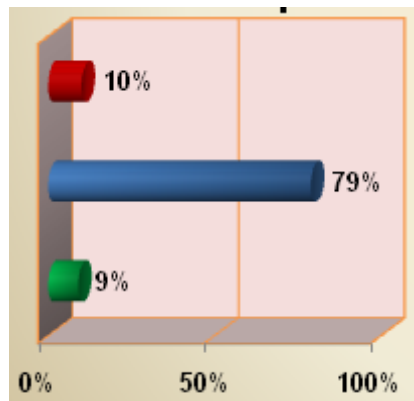
The study also points to an active life of our young people, 71% of them make rapid walking in step with > 2 hours in week, 53% regularly use bicycle, and 72% of them participate in organized sports activitie; 2 hours in week. H.S. Yuksel, F.N. Şahin, N. Maksimovic, and P. Drid Bianco, (2020)

Graphic no3 Physical activity in young people



Logical and realistic reflection of enterprises caloric and physical activity level values are also reported body weight perception, where only 9% of young people feel at risk for overweight, 79% feel normal and 10% do not know.

Graphic no 4 Reported values on body weight perception



9% risk for overweight 79% feel normal 10% do not know

Regarding the food that we often found with the youth daily menu, they are: bread and other cereals (95.55%), fruits and vegetables (84%), cheese (64%, but with a very low daily intake of 17% milk), meat (mostly white meat and red 48%), but with a lower consumption of fish (15%) due to higher prices in the spot trading market. There is a tendency to use for cooking fats of plant origin mainly sunflower oil and olive oil, low consumption of alcohol (about 38.7% claim not to have ever consumed beer or wine and 23% <1 time / month).

## Conclusions

-The study of the mode of nutrition of young people in our country allowed, for the first time, the calculation of average values for this age group calories day and in the assessment of diet quality plan.

- It is noted that caloric intake are lower than rates, (8) expressed in these particular male sex / rural areas and with a tendency towards unilateral feeding in layers with weak economic level.

Be the corresponding diet typical Mediterranean (Albania is also a Mediterranean country) with some minor deviations in terms of frequency of consumption of bread, milk and fish in relation to the recommended values.

- Albanian youths continue to make an active life in terms of level of physical activity and a low intake of alcohol.

- The data obtained will serve as an important basis in the planning and implementation of future programs in nutrition education, promoting a healthy lifestyle and prevention of illnesses from malnutrition.

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## **Autism is not a Disease of Definitive Cure but it is a Typical Disease of Definite Prevention**

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### **Abstract**

**Aim:** Demonstration of a possible role of *Helicobacter pylori* in the etio-pathology of autism that makes prevention of the disease possible. **Background:** *H. pylori* was suggested as a reason related to many medical challenges. *H. pylori* when forced to migrate to the colon due to the antibiotic violence; the accumulated *H. pylori*-produced colonic ammonia in profuse amounts conforms with the elevated serum ammonia among autistic children and its toxic effect with the hypothesis of the entire brain compromise suggested in autism. Interestingly, kids develop *H. pylori* trans-familial during the time of weaning which is the typical timing of developing autistic features. Ammonia is the producer of nitric oxide in the gut via a shear stress effect while nitric oxide is a cure and a poison at the mean time; that is in normal residual levels it is healthy while in excess amounts it is toxic. This could explain the early brilliant behaviors in some autistic kids which are followed by loss of skills later. A striking observation has been emphasized by some study where all parents of the autistic kids of that study were having frank *H. pylori* dyspepsia, the kids were also positive for *H. pylori* fecal antigen and some kids were recovered from prodromal symptoms via early colon clear from the colonic *H. pylori* strains. **Conclusion:** Autism then, when established, is not a disease of definitive cure but it could be a typical disease of definite prevention via protection from transmission of parents *H. pylori* strains to kids.

**Keywords:** ammonia, autism, colon clear, *Helicobacter pylori*, nitric oxide.

### **Introduction**

Autism constitutes a challenging puzzle affecting disadvantaged children at early age where they grow normal until age of 18-24 months then they begin failure to develop some skills or loose already developed skills. The exact etiology of the condition remains unclear while all promises of complete cure are unsuccessful. Autism is a brain disorder that limits a person's ability to communicate, correlate and relate to



other people. It is a series of neuro-developmental disorders that are characterized by deficits in both social and cognitive functions (Li& zhou, 2016). Autism spectrum disorders (ASD) affect about one child in 68, striking nearly five times as many boys as girls (Woolfenden et al., 2016; Baio, 2009). It was concluded that genetic and environmental factors are both responsible for the etiology of ASD. Although epidemiological studies have been conducted to clarify these factors but this conclusion remains unclear (Galichi et al., 2016; Kiely et al., 2016). Careful observers could early discover development of signs of autism in a child. Some children develop normally until 18-24 months of age and then they just stop or loose previously acquired skills. Signs of development of ASD could include repeated motions (rocking or spinning), avoiding eye contact or physical touch, delay in learning to talk, repeating words or phrases and getting upset by minor changes (Kiely et al., 2016; Allen, 1988). Young infants are very social even in the first year of age, therefore; it is possible to detect early signs of autism as early as how babies interact with their world. At this age, a child with ASD may not turn to a mother's voice, respond to his own name, look people in the eye, have no babbling or pointing and no smiling or responding to social cues from others (Emberti Gialloreti, et al., 2016; Spjut Jansson, et al., 2016; Locke, 2016). Children with autism may sometimes have physical symptoms including digestive troubles such as constipation and sleep problems. It was long believed that autism affects only those regions of the brain that control social interaction, communication and reasoning but instead it is suggested that the disorder in autism affects the entire brain (Galichi et al., 2016; Dinan& Cryan, 2016; Richter et al., 2015).

Most investigators were successful to come in agreement that various gastro-intestinal (GI) factors may contribute to behavioral disorders in children with autism (Li& zhou, 2016; Galichi et al., 2016) but they mostly missed to successfully achieve the real pathology behind these GI factors in contribution to autistic behavior. The last three decades have demonstrated prevalence of abnormal-behavior *Helicobacter pylori* strains and the flare up of a lot of medical challenges related to these *H. pylori* strains via inflammatory, toxic, immune or different unknown reasons to the extent that the medical world has believed that *H. pylori* eradication should be a necessary attempt (Farinha& Gascoyne, 2005; Nasrat et al., 2015a).

### Aim

Demonstration of a possible role of the bacterium *H. pylori* in the etio-pathology of autism that makes prevention of the disease possible.

### Review

Although various reports in literature refer with great concern to the role played by *H. pylori* in disease pathology (Farinha& Gascoyne, 2005; Nasrat et al., 2015a), research studies seldom indicated directly to the possibility that *H. pylori* could be hidden behind the pathogenesis of autism. Recent clinical studies have apparently

revealed a high prevalence of the GI symptoms such as inflammation and dysfunction in children with autism. Mild to moderate degrees of inflammation were almost found in both the upper and the lower intestinal tracts with an obvious decreased digestive enzyme activity in many autistic children. Treatment of these digestive problems appeared to constitute positive effects on autistic behaviors; these new observations represent only just a piece of this unsolved puzzle which is "autism" and should stimulate more researches towards the brain-gut connection (Horvath& Peman, 2002).

As ASD is often associated with different GI disturbances which may also impact behavior, therefore; alterations in autonomic nervous system functions should be also expected frequently in ASD. The relationship between these findings in autism is not clearly known. It was suggested that autonomic functions and GI problems are intertwined in children with ASD (Ferguson et al., 2017). Although the exact etiology and pathology of ASD remain unclear, a disorder of the microbiota-gut-brain axis is emerging as a prominent factor in the generation of autistic behavioral disorders. Clinical studies have shown clearly that GI symptoms and compositional changes in the gut microbiota frequently accompany cerebral disorders in patients with ASD. A disturbance in the gut microbiota which is usually induced by a bacterial infection or chronic antibiotic exposure has been implicated as a potential contributor to ASD. The bi-directional microbiota-gut-brain axis was often suggested to be acting mainly through neuro-endocrine, neuro-immune and autonomic nervous mechanisms. It was reported that application of modulators of the microbiota-gut-brain axis such as probiotics and certain special diets might be a promising strategy for the treatment of ASD. Different observations about disruption of the microbiota-gut-brain axis as concerns the pathogenesis of ASD have therefore suggested its potential therapeutic role in autistic deficits (Li& zhou, 2016).

A gut to brain interaction in ASD and the role of probiotics on clinical, biochemical and neuro-physiological parameters in autistic individuals have been emphasized and confirmed in further reports. It was furthermore adequately reported that the high prevalence of the frequent GI disturbances in patients with autism might be linked to gut dysbiosis representing a phenotype of a "gut-brain axis" disruption. Employment of strategies that could restore the normal gut microbiota and reduce the gut production and absorption of toxins such as probiotic supplements in diet might represent a non-pharmacological option in the treatment of GI disturbances in ASD. The effect of probiotic supplements in autistic children is not only specific on GI symptoms but also to improve the core deficits of the brain disorder, cognitive and language development, brain function and connectivity (Santocchi, et al., 2016). It was further reported that specific assessment of gut functions including the microbiome would be necessary to evaluate the contribution of gut physiology to functional constipation observed in autistic children (Marler, et al., 2016). As much as GI symptoms were frequently reported among autistic children, an impact of GI co-

morbidity on ASD behavioral problems has been hypothesized. 'Constipated' and 'Not-Eat' were described as the most frequent GI symptoms in autistic individuals (Fulceri, et al., 2016). Alteration in intestinal function which was often referred to as a "leaky gut" due to mucosal inflammation has been attributed to children who are on the autism spectrum; this particular symptom was even put into consideration to identify children with autism who have atypical symptoms (Kushak, et al., 2016).

The concept of gut-brain axis, its regulation by the microbiota and its role in the biological and physiological basis of neuro-developmental and neuro-degenerative disorders could thus constitute a considerable role in the pathogenesis of autism. The importance of early life gut microbiota in shaping future health outcomes should be also considered. Disturbances of this composition by way of antibiotic exposure could result in long-term effects on physiology and behavior (Dinan& Cryan, 2016; Kushak, et al., 2016). *H. pylori* in the stomach is leading the behavior of natural bacteria as it does not exist in the gastric lumen during presence of food and it remains settling just juxta-mucosal under the mucus layer of gastric mucosa with the ammonia at its immediate vicinity functioning to protect the gastric wall from its acid if it goes in excess (Farinha& Gascoyne, 2005; Nasrat et al., 2015a). Therefore; the antibiotic violence towards *H. pylori* forcing it to migrate towards the colon could definitely disturb its natural microbiotic function with its sequels on human body physiopathology.

The routes of communication between the microbiota and brain are being unraveled and could include the microbial metabolites such as ammonia (Dinan& Cryan, 2016; Farinha& Gascoyne, 2005). As *H. pylori* could migrate or get forced to migrate to the colon under the influence of antibiotics, it will continue producing ammonia for a reason or no reason, unopposed or buffered by any acidity, leading to accumulation of profuse toxic amounts of ammonia. Colonic *H. pylori* strains in their abnormal colonic habitat could lead to adverse toxic effects in the body; certainly the delicate physical structure of a child during early growth could be also severely affected by these aggressive drastic strains and the delicate integrity of the child's growing brain could further in susceptible children be a fragile target to the toxic influence of colonic ammonia (Farinha& Gascoyne, 2005; Nasrat et al., 2015a; Nasrat et al., 2015b).

The hypothesis of the entire brain involvement in autism was designed on the basis of impairment of the histology of whole areas of the brain in order to explain inability of autistic children to perform complex tasks (Donovan& Basson, 2017; Grecucci et al., 2016; Richter et al., 2015; Jou et al., 2011; Dinan& Cryan, 2016; Peeva, 2013; Casanova, 2013). In spite of the finding that many investigators have demonstrated rise of serum ammonia level among autistic children, they missed to indicate the possibility that elevated levels of serum ammonia could influence the entire functions of the whole brain of those kids (Burrus, 2012; Abu Shmais et al., 2012; Wang et al., 2012; Cohen, 2006; Corker& Tuzun, 2005; Fallon, 2005).

## Discussion

*H. pylori* colonized the stomach since an immemorial time as if both the stomach and the bacterium used to live together in peace harmless to each other and hence *H. pylori* has been considered by some investigators a natural bacterium (Farinha& Gascoyne, 2005; Nasrat et al., 2015a). *H. pylori* when forced to migrate to the colon mainly under the influence of the antibiotic violence would lead to different dyspeptic symptoms and accumulation of profuse toxic amounts of ammonia in the colon with consequent elevated levels of serum ammonia (Farinha& Gascoyne, 2005; Nasrat et al., 2015a; Nasrat et al., 2015c; Nasrat et al., 2015d). It is common that ladies develop dyspepsia during pregnancy; abnormal *H. pylori* strains are responsible for most cases of functional dyspepsia but it is rarely recognized that this dyspepsia among pregnant ladies is *H. pylori*-related (Nasrat, 2015). Accordingly; serum ammonia would be elevated in both maternal blood of those dyspeptic pregnant ladies and in the fetal blood in turn with the possibility of a toxic influence of ammonia on the delicate structure of the developing fetal brain leading also to sensitization of the fetal brain during early embryonic life to the adverse effect of ammonia. It has been reported that the neuropathology of autism starts early during embryonic life due to heterogeneity (Donovan, 2016; Chang et al., 2015; Blatt, 2012). The sustained elevated ammonia level in fetal blood caused by the colonic *H. pylori* strains of dyspeptic pregnant mothers could constitute a trigger of a causative pathology for neuro-development of autistic disorders confirming accordingly with the suggestion that both environmental and genetic factors are responsible for the etiology of autism (Galichi et al., 2016; Kiely et al., 2016).

The suggestion that the elevated residual serum ammonia level in fetal blood plays an early causative pathogenic factor in leading to autistic neuro-developmental disorders since embryonic life is supported by an observational finding expressed by mothers of 7 autistic children during their delivery. The mothers confirmed a frank history of *H. pylori*-related dyspepsia during their pregnancy which had been confirmed by specific laboratory tests, they were just able to follow gastric sedatives. They were astonished that their babies did not cry immediately after delivery and suction of their secretions in spite of their good general condition (Nasrat et al., 2017). Those mothers continued having *H. pylori* dyspepsia symptoms after delivery because of a contraindication for eradication therapy or failure of therapies as antibiotics are seldom effective against extra-gastric *H. pylori* strains (Farinha& Gascoyne, 2005; Nasrat et al., 2015a; Grünberger; 2006). Later, their kids developed autism between the age of 2-3 years.

Existence of *H. pylori* in children occurs trans-familial via food at an early age; this matter is confirmed by the fact that *H. pylori* strains of children are often identical with that of their parents. Interestingly, children maintain the same strain genotype life-long even after moving to a different environment unless eradicated. *H. pylori* travels between parents via oral to oral route while transmission to kids occurs via

meals (Nasrat et al., 2015b). The kids develop the abnormal-behavior colonic *H. pylori* strains at the time of their weaning when they start to share the dining table with their parents; that is typically the critical timing where children begin to develop autistic features or loose already developed skills (Kiely et al., 2016; Allen, 1988; Farinha& Gascoyne, 2005; Nasrat et al., 2015a).

Migration of *H. pylori* to the colon occurs mainly under the influence of antibiotic exposure. Existence of *H. pylori* in the colon is typically life-long unless eradicated as antibiotics are seldom effective against extra-gastric *H. pylori* strains and no available measure has been proved to effectively eradicate *H. pylori* from the colon except the senna purge (Farinha& Gascoyne, 2005; Nasrat et al., 2015a; Grünberger; 2006; Nasrat et al., 2015e; Nasrat et al., 2015f). Accordingly; pregnant ladies who develop abnormal colonic *H. pylori* strains via an outside-home query meal would mostly remain dyspeptic and would become in most instances the mothers of autistic children due to persistence of a causative pathology which has triggered its early effect during pregnancy and made the fetal brain already sensitive to the toxicity of ammonia earlier throughout the embryonic life.

In addition to the toxic influence of ammonia, excess amounts of ammonia in the colon is smooth muscle spastic leading to multiple colonic spasms and a high rectal spasm which were demonstrated in *H. pylori*-dyspeptic adults by colonoscopy. These spasms interfere with the integral colonic function of forming the motion contents, instead it squeezes the colonic contents leading to constipation and formation of small pieces of dried stool (Nasrat et al. 2015c). Existence of *H. pylori* in the colon was confirmed by a specific test (*H. pylori* fecal antigen) which was found positive in all children and parents of many studies in literature. Constipation and passage of small pieces of dried stool are cardinal signs of colonic *H. pylori*-related dyspepsia (Nasrat et al., 2015c; Nasrat et al., 2015d); these cardinal findings were found constant features in all autistic children in some studies.

The constant association of GI symptoms with autism to the extent that a gluten-free diet and probiotics were employed to improve these symptoms could further support the possibility of the role of *H. pylori* behind the pathogenesis of the disease. It has been further suggested that strategies of probiotic supplements that could help to restore normal gut microbiota and reduce the gut production and absorption of toxins have been advised and employed not only to improve GI symptoms in autism but also to improve the core deficits of the brain disorder (Santocchi, et al., 2016). Small bowel enteropathy has been reported in literature among patients with autism that could be attributed to embedding of *H. pylori* colonization towards small intestinal mucosa which is a further unrecognised unusual behavior of *H. pylori* (Farinha& Gascoyne, 2005; Nasrat et al., 2015a; Torrente et al., 2004; Nasrat, 2023). GI symptoms were frank and constant among patients of many studies; minute-size continuous intestinal sounds were diffusely audible over the center of abdomen that had been related to small intestinal irritation. Small intestinal enteropathy could account for the

observations of “No Appetite”, “No Hunger” and “No Eat” symptoms among autistic children of these studies as kids would feel continuous abdominal discomfort that interferes with the natural desire to food. It was suggested that autonomic functions and GI problems in autistic children are linked together (Nasrat, 2023; Ferguson et al., 2017); therefore, the quite passive peaceful attitude of some autistic children; “Non-Smiling”, “Non-Reactive” was attributed in some studies to a degree of parasympathetic activation caused by the minor dull painless somatic intestinal insult. The improvement of intestinal symptoms among children of these studies upon intake of a warm mint drink, a soft caffeine drink or chocolate was explained to the improvement of this autonomic compromise. Constipation, weak appetite, passage of small pieces of dried stool or leaking small amount of soft retained/overflowing stool were encountered as constant features among those children (Nasrat et al., 2017).

Major colonization of abnormal-behavior *H. pylori* strains is necessary to induce symptoms and toxic complications. Spontaneous reduction below the pathologic level (50%) or even spontaneous elimination of *H. pylori* from the colon could occur due to variable reasons such as diarrhea or intake of foods containing bio-organic acids like lactic, formic, citric or acetic (Farinha& Gascoyne, 2005; Nasrat et al., 2015a; Zentilin et al., 2003). This could explain the wide variation in autistic features and the observation that some children develop some autistic symptoms then they skip the disease as they grow up.

A unique study has included two children newly diagnosed for autism, one was two years of age who started pronouncing some words and then he lost this skill. Immediate colon clear was employed for him and his parents within few days the clinical diagnosis was made up, that was followed by complete recovery of the child’s skills. The other was three years old when diagnosed but he had lost the developed verbal skills one year earlier; he improved a little bit but did not recover completely after colon clear. That study also included a girl 11 months old; it was surprising to find a baby of that age who does not cry or even smile in response to her mother’s plea, she was looking constantly to one direction and was never responsive or attentive towards her mother’s voice. She was typically constipated and was crying only during passing the motion in the form of small pieces of dried hard stool. The father was having frank constipation and severe colonic dyspeptic symptoms due to frequent outside-home meals during business lunch and dinner meetings. *H. pylori* fecal antigen test was strongly positive for the girl and the parents; definitely the bacteria travelled from husband to his wife who gave it to her kid possibly while preparing and tasting the enfant’s feeds or kissing her baby on the lips. Unfortunately, that girl was seen few months after she developed these features; immediate colon clear with a calculated dose (45 CCs) of the senna leaves extract purge was employed for her followed by vinegar-mixed fruit yoghurt twice daily. The girl improved within few days but did not recover completely because of late discovery and management of her condition; her bowel motion became easy without tragedy, the girl started to

smile, look towards her mother, respond to her mother's voice and most importantly she learned to cry like any baby of her age when neglected for short time. *H. pylori* DNA extraction in the stool and *H. pylori* strain genotyping were done for the girl and parents; they were found having the same strain genotype with existence of cytotoxin-associated gene A (*cagA*) positive *H. pylori* strains (Nasrat et al., 2017). It was emphasized that *cagA* of *H. pylori* encodes a highly immunogenic and virulence-associated protein; the presence of this virulent gene in the body could affect the clinical out-come in many children (Bulut, 2006 Jul).

Permanent compromise of some areas of the brain among autistic children such as impairments of grey or white matter, decreased cortical thickness or cortical thinning leading to dysfunction of complex interactions in disadvantaged children was confirmed in literature (Richter et al., 2015; Peeva et al., 2013; Casanova et al., 2013; Misaki et al., 2012); possibly for this reason, most researchers were just able to achieve improvement through employing different measures but never complete cure of their autistic patients. The results of various studies conform with the literature results in achieving incomplete cure of autistic features which could indicate that autism might not be a disease of definitive cure but it could be a typical disease of definite prevention via restriction of antibiotic use unless seriously indicated, extreme carefulness towards outside-home meals, natural colon care and natural colon clear on developing dyspeptic symptoms. If there is a chance for fundamental cure in autism, it might be via colon care and colon clear for both kids and parents. Early diagnosis and management are precious in this situation; recovery of the developed verbal skills for the two-years old child mentioned above with the lucky advantage of early discovery of the onset of the disease upon losing the developed verbal words is an ideal example (Nasrat et al., 2017).

Prevention is always far better than treatment; scientific research efforts could not reach until to date an adequate cure of autism while it could be greatly preventable by protecting children's brain from the bad sequels of the abnormal *H. pylori* strains of their dyspeptic mothers (Nasrat et al., 2015c; Debevere et al., 2001; Nasrat et al., 2017).

The reason that there are some conditions that have developed autism before the last three decades which is the particular period of the abnormal-behavior *H. pylori* strains prevalence, is most probably due to chronic antibiotic exposure or the frequent antibiotic abuse that would force *H. pylori* to migrate to the colon; the suggestion of chronic antibiotic exposure in leading to autistic disorder has been suggested by some investigators (Li & Zhou, 2016). The last three decades demonstrated flare up of abnormal-behavior *H. pylori* strains after the the development of the strategic triple therapeutic violence against the stomach bacterium by two Australian physicians with consequent flare up of medical challenges related to these drastic abnormal-behavior *H. pylori* strains. It might seem that the antibiotic violence has rendered a domestic bacterium to become wild in

attitude and sequels instead of getting rid of it. The challenge of autism first appeared before the lastest three decades but it has mostly dominated during these last three decades (Li& zhou, 2016; Farinha& Gascoyne, 2005; Nasrat et al., 2015a; Aksoy& Sebin, 2015; Nasrat et al., 2015g; Nasrat et al., 2017).

The literature reports indicate increased risk and rising prevalence of identified ASD among U.S. children. An investigator with his 45 collaborators reported in 2009 that the increased prevalence of identified autism among U.S. children need to be regarded as an urgent public health concern (Galichi et al., 2016). The reason that autism prevails among U.S. children could be most probably related to the fact that U.S. is a typical country of fast food dependency and the food handlers are mostly poor people migrating from poor developing countries with inadequate health care standards carrying with them abnormal-behavior *H. pylori* strains (Farinha& Gascoyne, 2005; Nasrat et al., 2015a). According to some personal communications; some mothers of autistic children indicated frankly that they love fast food to the extent that some particular fast food meals run in their blood while some mothers admitted that they are lazy to cook when they are pregnant and they depend on outside-home meals. Others mentioned that when they get pregnant while the previous baby is still between 2-3 years old, they depend mainly upon fast food delivery for themselves and their kids (Nasrat et al., 2017).

## Summary

In Summary, realization of the real clue of a challenging illness constitutes the main success in its management; the hypothesis of the toxic influence of elevated serum ammonia in leading to the onset of an autistic behavioral disorder might remain just hypothetical until approved or disapproved but the unsolved puzzle of ASD has been considered as a “sequence” rather than a syndrome (Casanova et al, 2013). Apparently, the current available literature knowledge might seem articulating together without any little dislocation to support a concept that the spread of the abnormal-behavior/existence colonic *H. pylori* strains could just lie hidden behind the pathogenesis of a complex sequence of spectral events leading to the prevailing challenge known as the disorder of autistic spectrum. Therefore; research investigators should feel quite very enthusiastic towards this concept in order to support and approve or disapprove it for the sake of the possibility to alleviate misery of many kids and families of autistic children. Prevalence of the abnormal-behavior *H. pylori* strains followed the antibiotic violence towards this bacterium during the last three decades while flare up of medical challenges related to these *H. pylori* strains started also during the latest three decades; autism could be simply one member among these disease challenges. Autistic behavioral syndrome appeared earlier than the last three decades possibly also because of antibiotic abuse but it has dominated and flared up during the late decades. Antibiotic exposure was suggested as a factor leading to autism, the association of GI troubles and autism is frank and constant, development of autistic features or loss of developed skills occurs at the typical age



where children could gain abnormal *H. pylori* strains trans-familial from their parents, *H. pylori* in the stomach was suggested to lead a behavior of natural bacteria while the role of microbiota and probiotics in autism is strongly suggested in literature, the elevated serum level of ammonia among autistic children is constant in most scientific reports and the toxic effect of *H. pylori*-produced ammonia on the whole brain conforms with the hypothesis of entire brain compromise suggested to explain inability of autistic children to perform complex interactions; all these findings seem quite articulated together to refer to the pathogenic influence of the abnormal *H. pylori* strains in the development of autism.

Accordingly, it seems that autism might not be a disease of definitive cure due to a permanent compromise of areas of the brain responsible for development of skills caused by a sustained toxic influence of ammonia throughout a critical period of brain growth during a child's early life. For this reason, scientific research efforts were just able to get improvement of autistic behavioral symptoms but did not achieve a real or definitive cure of autism. On the other hand, autism could be a typical disease of definite prevention via extreme carefulness towards outside-home meals, restriction of antibiotic use unless seriously indicated and natural colon care/colon clear for mothers who develop *H. pylori*-related dyspeptic symptoms before or during pregnancy also while nursing their kid's during the early critical ages of child's growth. Early diagnosis and management of autistic features in a child could greatly improve the out-coming results of the attempts to correct the condition through colon clear for the kids themselves. Accordingly; the next kids after an autistic one could be simply at least saved from the disease as the matter of *H. pylori* is an environmental sanitary conflict before it is an actual medical challenge and prevention remains always far better than treatment.

### **Acknowledgement**

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### **Conflict of interest**

No conflict of interest is existing.

### **Conclusion**

Autism, when established, might not be a disease of definitive cure due to permanent compromise of some areas of the brain responsible for development of skills during a critical period of a child's brain growth but it could be a typical disease of definite prevention. The value of this review study is the promising opportunity it gives for a child when discovered at the early prodromal symptoms to recover and skip the disease or at least next kids of an autistic one could be saved from developing autism via colon clear for parents.

The anti-*H. pylori* antibiotic strategies might need to be subjected to extreme scientific revision and severe accurate re-determination owing to the possibility of having rendered an innocent biologic bacterium to become wild in attitude and sequels instead of getting rid of it.

Potent natural measures should be employed in order to control the challenge of *H. pylori* and functional dyspepsia instead of antibiotics.

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## Population's Mental Health after Wave V of COVID in a Disadvantaged Region of North-Hungary

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### Abstract

We examined the level of stress, aggression, health anxiety and well-being and their changes in almost every wave of the pandemic, and we have reported about the results in national and international studies. In Wave V, the prolonged effect of the pandemic, and, over the mental situational picture, the population's post-traumatic condition was also examined. Our current research is focusing on the situational picture of North-Hungary, our aim is to get know the mental state of the region's population. During the research, we used the Mental Health Continuum Scale (MHC-SF), the Depression, Anxiety and Stress Scale (DASS-21) and the Post-traumatic Growth Inventory (PTGI) completed with background variables. Results: the questionnaire was filled by 482 persons living in the region, 34.4% of them were men, 65.6% were women, average age  $33 \pm 15.1$ . The mental health of the region's population appears to be below the average ( $x=32.6 \pm 11.8$ ). The worst situation was found in the population's social well-being ( $x=9.7 \pm 4.7$ ) which did not reach the threshold value. The respondents' average was in the normal range on the depression, anxiety and stress scale ( $x=21.9$ ), but the more severe stage of depression was shown by 30% of the respondents, the same of anxiety by 29.5% and stress by 19.9%. The existence of the population's post-traumatic condition could be detected in the region ( $x=43.1 \pm 20.9$ ) that could be interpreted as the aftermath of the pandemic. The COVID infection occurring in the family has strongly influenced the development of the condition ( $p < 0.009$ ).

**Keywords:** Population, mental health, Covid disadvantaged region, north-Hungary

### Introduction

In the beginning of the COVID-19 pandemic, the situation analysis of the mental health status of the disadvantaged region has been initiated in the frameworks of the

Excellence Program of Higher Education Institutions. We monitored and followed the level and changes of stress, aggression, health anxiety, hope and well-being in the second, third and fourth waves of the pandemic, about which we reported in national and international studies. The prolonged pandemic has occurred as severe mental burden among people, so, in Wave V, we examined the long-lasting effects of the pandemic in the region's population, and, over the mental situational picture, the population's post-traumatic condition as well.

### **Literature review**

The new coronavirus occurred in the end of 2019 (SARS-CoV-2) reached Europe and Hungary in the spring of 2020, and it has raged in five waves until now. Although, life was partially restored after the end of the first wave, other four waves passed between the autumn of 2020 and the summer of 2022. The changes of the morbidity and mortality indicators experienced in the certain waves has turned our way of life upside down and become strong stress resources. The pandemic has caused the forced transformation of life guiding, and the changes of our methods of keeping in touch, learning and work, as a consequence of which several new habits and coping mechanisms should have been created. Besides the inconvenience of losing the usual behavioural routines, a lot of people had to face with severe existential difficulties.

The new situation meant a great health, economic, physical and mental hygienic challenge for the humanity. Even the early studies warned for the negative effects of the virus on mental health besides its short- and long-term effects on physical health (Brooks et al., 2020; Osváth, 2021; Pfefferbaum & North, 2020; Sampogna, 2022). It has been proved in numerous cases by now that the pandemic has caused the aggravation of the symptoms of depression, perceived stress, anxiety and psychoactive substance abuse (Lakatos & Rucska, 2022; Li et al., 2021; Rucska & Lakatos, 2021; Tyrer, 2020; Xiong et al., 2020). The inflation, workplace uncertainty, unemployment, existential uncertainty, and controversial information in connection with economic measures and world economic processes were accompanied by such negative mental symptoms as frustration and boredom, post-traumatic stress reactions, panic symptoms, anger and irritability, low self-esteem, loneliness and the feeling of inertia (Brooks et al., 2020). All these internal conditions typical for existential crisis were accompanied by the significant decrease of the level of mental well-being (Serafini et al., 2020).

A critical incident is such a sudden, unexpected, often directly life-threatening and -endangering event (e.g., mass disaster, terror attack, epidemic) that may overwhelm the individual's capacity to respond adaptively (Flannery & Everly, 2000). The COVID-19 pandemic affecting all fields of life may be considered as exactly this kind of critical/traumatic life event (a stressor) that happened unexpectedly and suddenly, affected people over the world, and caused the drastic transformation of the daily, usual, routine lifestyle (Fiorillo & Gorwood, 2020; Gorwood & Fiorillo, 2021).

During the examination of the mental effects of the pandemic, it is worth keeping in mind the important principle of positive psychology, according to which people experience and evaluate the same experience or life situation in very different ways, the response triggered by a certain stressor basically differs in case of different persons, and it can be even totally opposite (Oláh, 2005; Tringer, 2014). So, the psychological reactions following traumatic events are not one-sided responses which occur as a template in all sufferers, but they are rather complex, multi-faced phenomena, thus, positive mental reactions may also occur besides the negative ones. According to experience, not only collapse, or survival accompanied by permanent damage, but recovery (resilience) and blooming (personality growth) are also possible after a traumatic life event (Kállay, 2007). The latest is also known as post-traumatic growth or *“the experience of positive change that occurs as a result of the struggle with highly challenging life crises”* (Tedeschi & Calhoun, 2004, page 1). By now, the definition separates well from the definitions of coping, mental adaptation, and resilience, and indicates such a growth process by which the persons experienced the critical life event will not get sick of the experienced trauma, but they will “grow” both emotionally and spiritually (Vörös et al., 2009).

Numerous studies have been conducted for the examination of post-traumatic growth in the recent years. On the one hand, the studies were aimed at individual life events (tumorous diseases, suffering due to a traffic accident) (Gouzman et al., 2015; Kroemeke et al., 2017), and communities suffered from a natural disaster, earthquake or nuclear accident on the other hand (Pérez-Sales et al., 2005; Kaye-Kauderer et al., 2019), but they were also extended to earlier health crises, such as SARS-epidemic (Cheng et al., 2006). The common characteristic of the listed situations is that all of them generate anxiety, fear and worry because of unpredictability, uncertainty, and the accompanied risks, and the differences can always be detected in the individuals’ reactions (Esterwood & Saeed, 2020).

However, several models have been created for the explanation of post-traumatic growth (Janoff-Bullman, 2004; McMillen, 1999; Tedeschi & Calhoun, 2004, cited by Tanyi, 2015), the functional-descriptive model of Tedeschi and Calhoun (2004, 2018) is the best-known one. According to the model, the personality development of a traumatized person is determined by the person’s features, the nature of the trauma and the effects of the environment together. The affected people report about development and growth in five fields most often. These are the following: greater appreciation of life, living warmer and more intimate relationships, increased feeling of personal power with experiencing vulnerability at the same time, recognizing new opportunities and career paths, and spiritual development. Additionally, growth may occur in the increased appreciation of health and the positive change of health behaviour, but even in other fields, such as experiencing financial advantage, professional development, or self-knowledge (Kulcsár 2005; Tanyi 2015). Research exploring post-traumatic growth has associated the phenomenon with decreased



mortality data, lower depression level, fewer post-traumatic stress symptoms, and the decrease of the risk of a second heart attack (Kovács et al., 2012; Reinhardt, 2022b).

As social support, and the physical and spiritual presence of the family members, close relatives and friends within that, has key importance in the cognitive and emotional process of the traumatic event, researchers have come to the conclusion in the early studies that the supporting person can also experience growth during the active presence, but its level is lower than in case of the person affected by the trauma (Kulcsár, 2005; Tanyi, 2015). The results of the examination performed among healthcare professionals during the COVID-19 period, which found and described significant post-traumatic growth among the hospital workers caring after corona virus patients, may connect to this closely (Chen et al., 2021; Pado et al., 2022).

The COVID-19 pandemic crisis has had really serious negative mental effect all over the world. Studies reported about the experiences of post-traumatic growth (PTG). For example, in Spain in March 2020, 15-41% of the population showed moderately severe post-traumatic stress symptoms (Collazo-Castiniera et al., 2022).

## **Methodology**

### **Materials and methods**

Our present research focused on the North-Hungarian situation picture; our aim was getting know the effects of the long-lasting pandemic on the mental condition among the population over the age of 18 living in the region. For the research, we used the Mental Health Continuum Scale, the DASS-21 and the PTGI scale measuring the post-traumatic condition with background variables.

The *Mental Health Continuum Scale* (MHC-SF) examines three fields of subjective well-being: hedonic tradition measures *emotional well-being* that means how much the person is happy and satisfied. Eudaimonic tradition *examines psychological well-being* that looks self-acceptance, positive relationships, aims, the sense of efficiency, and autonomy, and *social well-being* that examines social relationships, social integration and acceptance (Reinhardt, 2022a).

The *Depression Anxiety Stress Scale* (DASS-21) is a multidimensional questionnaire that assesses three negative emotional conditions: depression, anxiety and stress.

The *Posttraumatic Growth Inventory* (PTGI) serves for the mapping of the experience of positive changes following the trauma. The scale uses 5 factors to examine that at which field the positive change following trauma starts<sup>1</sup>. The scales of the measuring tool look the positive attitude to other people, the increased respect of life, the exploration of new opportunities, personal power and spiritual change. The higher

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<sup>1</sup> Maximum 105 points can be achieved.

score shows the level of mental growth developing as the aftermath of the trauma: the higher the score, the stronger the experienced post-traumatic growth (Reinhardt, 2022b).

The online survey study is not representative, but the large number sample reflects well the region's mental status. Data were analysed by SPSS statistical software.

### Characteristics of the sample

The questionnaire was filled by 482 persons living in the region, 34.4% was male and 65.6% was female. Their average age was 33±15.1, the youngest was 18 years old, the oldest was 73 years old. 12% of the population lived in the capital city, 40.1% in cities, 24.9% in towns and 23% in villages. People living in the North-Hungarian region were overrepresented (69.7%), but the answers of the population of six different regions also occurred in different rate in the sample. The majority had maturity graduation (48.1%), 27.3% of the respondents had higher education, 10.3% were workmen, 10.3% had technical education, and 4% had general education (primary school) or lower level. 48.5% of the sample worked regularly. The workplace of 14.3% of the population became endangered during the pandemic. Although not significantly ( $p < 0.069$ ), but losing job occurred as a higher risk factor among women<sup>1</sup>. 41.3% of the respondents live in family, 21.8% in multigenerational family, 17.7% live alone and 19.2% in a relationship. 42.7% of the sample feels its health status good, 33.2% satisfactory, 17.4% very good, 5.8% bad and 1.9% feels it very bad (Table 1.).

	Valid Percent
Valid Very bad	1.9
Bad	5.8
Satisfactory	33.2
Good	42.7
Very good	17.4
Total	100.0

Table 1. Subjective health status

Age has significant effect on subjective health status ( $p < 0.000001$ ): older people feel themselves less well.

### Results

#### *Mental Health Continuum Scale (MHC-SF)*

Mental health was examined along three dimensions: emotional, social and psychological well-being (Table 2.). It can be seen well in the table that the values of

<sup>1</sup> In the North-Hungarian region, men are at greater risk ( $p = 0.069$ ) in the issue of losing a job.

the population of the disadvantaged North-Hungarian region were minimally lower than the values of the total population.

	emotional	social	psychological	mean of total score
Total population mean score	7.6618	9.7863	15.2365	32.6846
SD	3.15895	4.71671	5.68125	11.81282
North-Hungary mean score	7.4379	9.7267	15.1087	32.2733
SD	3.18351	4.79419	5.62294	11.88233

Table 2. Mean of dimensions of mental health

The mental health of the region’s population appears to be below the average ( $x=32.68\pm 11.8$ )<sup>1</sup>. During the examination of the sub-scales, it can be stated that the worst situation could be explored in the population’s social well-being ( $x=9.7\pm 4.7$ ) which is far under the threshold value. The emotional and psychological well-being are around the threshold value. Educational level determines mental well-being ( $p<0.006$ ), higher educational level occurs as a protective factor. No significant differences could be found in case of genders ( $p<0.072$ ), but women showed better mental status than men both in the samples of the total population and North-Hungary (Table 3.).

Gender		emotional	social	psychological	total mean score
<b>Total population</b>	mean score	7.5542	9.2349	14.5602	31.3494
	SD	3.30749	4.93340	6.08570	12.59142
<b>North-Hungary</b>	mean score	7.4298	9.3070	14.5175	31.2544
	SD	3.35765	5.11484	6.09691	13.00906
<b>Total population female</b>	mean score	7.7184	10.0759	15.5918	33.3861
	SD	3.08192	4.58021	5.43310	11.34018
	mean score	7.4423	9.9567	15.4327	32.8317

<sup>1</sup> The threshold value of the MHC-SC scale is 37.5.

<b>North-Hungary Female</b>	SD	3.09223	4.60551	5.33291	11.21057
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Table 3. Mean of dimensions of mental health in terms of genders

Examining the sub-scales, it can be seen that the North-Hungarian emotional dimension was closely the same in terms of genders, but women showed better condition in case of the other dimensions.

The indicators of the scale correlate with the values of the Depression, anxiety and stress scale ( $r=-0.365$ ). The strongest correlation could be observed in the depression dimension of the emotional ( $r=0.42$ ) and psychological ( $r=-0.37$ ) sub-scales. Family, and lifestyle in multigenerational family households within that, influence mental health status as a protective factor ( $p<0.005$ ).

On the *Depression, anxiety and stress scale*, the mean value of the respondents was in the range of normal values ( $x=21.9$ ), but some of the severe stages of depression could be seen in 31.5% of the respondents, stress in 17.6% and anxiety in 32.3% (Table 4.). People living in the North-Hungarian region were affected by stress in a greater extent than in the total population (19.9%).

	mean score total population	mean score North-Hungary
Depression	7.1	7.2
Anxiety	5.7	5.6
Stress	8.9	8.9

Table 4. Mean of dimensions of the Depression, anxiety and stress scale

The *depression* sub-scale of the measurement shows that, in average, the population is not affected in the issue of depression. But the not negligible rate of the sample showed depression symptoms, mild depression could be experienced in 13.7%, moderate in 16.9% and severe depression in 0.9%. Residence influences the level of depression, however, not significantly ( $p<0.076$ ): higher level of depression can be experienced in people living in villages than those living in towns.

The mean value of the questionnaire's *anxiety* sub-dimension can also be found within the normal value (Table 4.), but mild state of anxiety was shown in 8.6%, moderate in 15%, severe in 7.1% and very severe in 1.7%.

Age significantly influences anxiety ( $p<0.022$ ), the younger age group is more affected.

Although, residence does not influence the level of anxiety significantly ( $p=0.2$ ), but people living in villages are more anxious.

The mean value of the *stress* sub-scale can also be found in the normal value (Table 4.), but mild stress level was shown in 13.1% of the sample, while moderate in 4.5%. Age influences the level of stress significantly ( $p < 0.000021$ ), the younger age group is more stressful than the elderly.

Before the sub-unit of the questionnaire, a negative life event happened within the last 5 years had to be recalled. Mostly the death of a relative within 2 years, own infection, a broken-up relationship, a car accident or other diseases were recalled by the respondents.

The *Posttraumatic Growth Inventory* (PTGI) looks through five dimensions that in which dimension the positive change following the trauma has started. The higher score obviously suggests experienced post-traumatic effect. Obviously post-traumatic situation could be detected in the sample ( $\bar{x} = 43.1 \pm 20.9$ ) (Table 5.). The change occurred most markedly in spiritualism, then strong transformation could be experienced in case of personal power.

	positive aspect	increased respect of life	discovery of new opportunities	personal power	spiritual change	summed mean score
mean score	14.3987	5.1782	10.7661	9.7550	3.0824	43.1804
SD	7.43268	2.94433	6.54286	4.97697	2.79746	20.97779

Table 5. Mean values of the PTGI sub-dimensions

The COVID infection occurring in the family strongly influenced the development of the condition ( $p < 0.009$ ). Not significantly, but this condition occurred mostly in people living in cities ( $p > 0.3$ ). During the examination of the sub-dimensions, it can be stated that significant difference can be experienced in the positive attitude in case of genders ( $p < 0.031$ ) and subjective health status ( $p < 0.006$ ), women with very good subjective health status are the most affected. The level of spirituality increased significantly in the religious population ( $p < 0.002$ ).

Only 8.5% of the respondents asked for mental support, which was overrepresented in the population of the North-Hungarian region (6.3%), but the demand would be significantly higher, since 29.8% told that they would have demand for such kind of support. Rather women living in villages used the help of professionals.

## Summary

In our non-representative research made by online data recording, we were curious for what mental status change was caused by the prolonged pandemic period in the Hungarian population, and especially in the disadvantaged North-Hungarian region.

We used standard validated questionnaires for data recording, such as the Mental Health Continuum Scale, the DASS-21 (depression, anxiety and stress) scale and the post-traumatic growth scale. Data recording was performed during the fifth wave of the pandemic.

482 persons filled in the questionnaire.

The population's mental status is satisfactory, but some disturbance could be detected in the social dimension which could be caused by the prolonged and recurring quarantine situations.

Nearly 31.5% of the population is affected by some level of depression, about 30% has anxiety and about 18% is stressed. While elderly people are more affected by anxiety and depression, younger people are more affected by stress.

The experienced post-traumatic situation can obviously be detected in the region's population, which has developed as the effect of infections, death cases and family tragedies happened in the family. Women living in cities and having subjectively good health status are the most affected group.

## **Conclusion**

The mental status of the region's population has been strongly damaged by the long-lasting pandemic, as all the sub-dimensions of the scale show significantly worse values compared to the previous national measurements (Reinhardt, 2019). The values occur more markedly in the North-Hungarian region compared to the total population. Our research has obviously supported and completed those international studies according to which the pandemic has caused such mental status in the population that resulted in the strengthening of the post-traumatic condition (Collazo-Castiniera et al., 2022). In case of the population living in the disadvantaged regions, people are not aware of this situation, so, they cannot use professionals' help as well. The demand for professionals occurs in people in higher social status, but they cannot use it in time because of the inadequate supply of the region.

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## **Therapeutical Properties of Bioactive Compounds Extracted from *Ganoderma lucidum* Species on Acute and Chronic Diseases**

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### **Abstract**

*Ganoderma lucidum* or Reishi is a medicinal mushroom of significant importance that is being used for the prevention and treatment of various diseases, due to its numerous pharmacological and therapeutic properties. The Ganodermataceae family is diverse, but the focus is on the *lucidum* species because of its specific biologically active macromolecules such as polysaccharides, triterpenoids, steroids, phenolic compounds, lactones, and fatty acids that were isolated from the mycelia and fruiting bodies. *Ganoderma lucidum* species have many benefits over the immune system (promoting health) and properties such as: anti-tumoral, anti-inflammatory, anti-allergic, anti-viral, anti-bacterial and antioxidant. Based on the literature, triterpenoids and polysaccharides are the most abundant active compounds that possess anti-diabetic, hepatoprotective, cytotoxic and anti-hypertensive effects. A review of the literature showed that there are very few papers that studied semisolid dosage forms preparations based of *Ganoderma lucidum* extract to have been used on damaged skin and skin diseases, neither have there been enough studies on its anti-aging properties.

**Keywords:** *Ganoderma lucidum*, polysaccharides, anti-inflammatory, anti-tumoral, antioxidant

### **Introduction**

Currently, medicine based on plant extracts or other medicinal herbs is in great demand by the population, since most are looking for a way to live healthy or looking for alternative medicine based on herbal extracts. Still, fungus extracts are in great demand, especially those from Ganodermataceae family due to its promotions over

the years, which shows through statements and studies that is still a wonder-mushroom [1]. It is known that medicinal mushrooms have been used in over the years to treat many disorders, for promoting health and longevity in Asian countries. Among Eastern population, the name Reishi or Mannentake is commonly used by Japanese people and is the symbol of good health. In Chinese and Korea, it is known as LingZhi and represents a combination of spiritual potency and essence of immortality [2]. *Ganoderma lucidum* (*G. lucidum*) also known as Reishi and LingZhi, is the most known medicinal macrofungal species, with a long history in promoting health in different countries, especially in China and Japan. The medicinal activity of *G. lucidum* fungus is localized, for example, inhibiting the activity of the enzyme cyclooxygenase in the anti-inflammatory response [3] and proliferation of the immune system by inhibiting its activity in cases of overstimulation [4].

Various formulations and products based on this fungus species are now available on the market. These are extracted from different parts of the fungus: mycelium, spores, and fruiting body. Most products are in the form of tea, tonics and coffee, powders, and encapsulated food supplements [4].

### Botanical description

*G. lucidum* is a kidney-shaped mushroom [4] with glossy surface and woody texture [5]. *Ganoderma* genus can be found all over the world, mainly in tropical and subtropical climates [6], but different characteristics of the fruiting body, soil specificity and geographical origin are used to identify individual species of this medicinal fungus. The Ganodermataceae family consists of many fungi from the *Ganoderma* genus [6] and the taxonomy classification of this species is related into Table 1.

This species grows on multiple hosts, on living trees or stumps of oak and is growing rarely on coniferous trees [2]. In Europe, specially in Romania, it can be found in the Sub Carpati mountain chain region. The medicinal mushroom, *Ganoderma lucidum*, taken in work, weighs 0.25 grams, is 9-10 cm wide and 9-10 cm long and is quite bulky, has a dark reddish shiny surface and a woody texture, see Fig. 1.

**Table 1 Taxonomy classification of species *G. lucidum* [6, 7]**

<b>Kingdom</b>	<b>Fungi</b>
<b>Phylum</b>	Basidiomycota
<b>Class</b>	Basidiomycetes
<b>Sub-class</b>	Homobasidiomycetes
<b>Family</b>	Ganodermataceae
<b>Genus</b>	<i>Ganoderma</i>
<b>Species</b>	<i>lucidum</i>



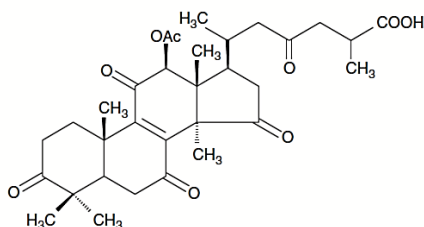
**Fig. 1 Ganoderma lucidum (personal archive)**

### **Polysaccharides and Triterpenes of *Ganoderma lucidum* extract**

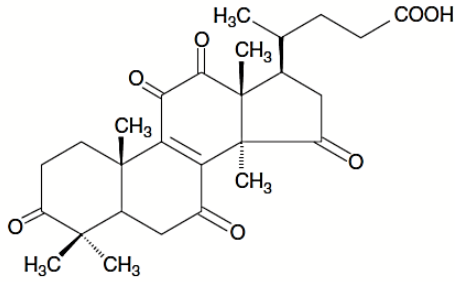
Polysaccharides and triterpenes are the most abundant biocomponents in the composition of *G. lucidum* [1]. The most important functions of polysaccharides are reported by numerous studies, and there are: normalizing blood glucose levels, restoring the enzymatic balance in the intestinal tract due to the probiotic effect [8], reducing damage through antioxidant effect on free radicals formed in oxidation reactions. Anti-diabetic and anti-tumor effects have also been reported for both the polysaccharide and triterpenoid components [9]. In addition to these effects, triterpenoids have an immunomodulatory effect, proven by in vivo and in vitro studies. Beside these two major bioactive compounds, the mushroom contains in significant quantities proteins, lipids, carbohydrates and sodium chloride [10].

### **Triterpenoids from the *G. lucidum* mushroom**

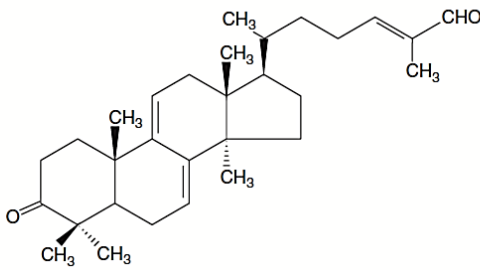
There are many types of triterpenoid compounds that have been isolated from the *G. lucidum* mushroom, the most common are ganodermic, lucidenic, ganoderals, ganoderols and applanoxidic acids. The most characteristic acids in the composition are ganodermic acid F (Fig. 2), lucidenic acid D1 (Fig. 3), ganoderal A (Fig. 4), ganoderol B (Fig. 5) and applanoxidic acid A (Fig. 6) [9].



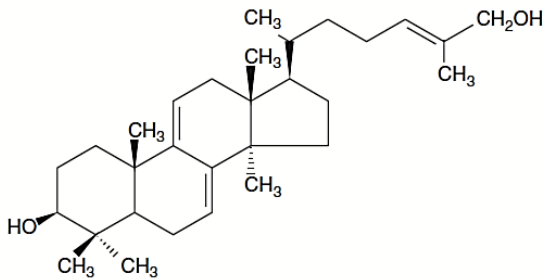
**Fig. 2 Ganodermic acid F**



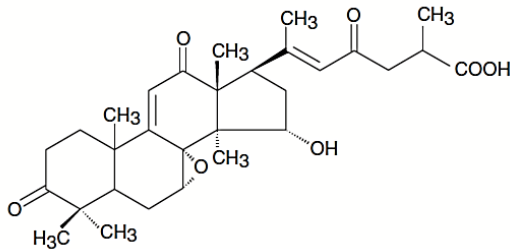
**Fig. 3 Lucidenic acid D1**



**Fig. 4 Ganoderal A**



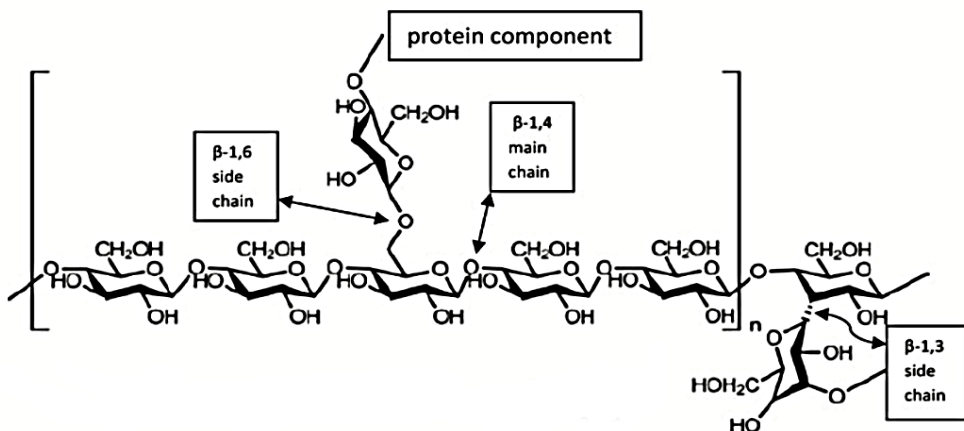
**Fig. 5 Ganoderol B**



**Fig. 6 Applanoxidic acid A**

### Polysaccharides from the *G. lucidum* species

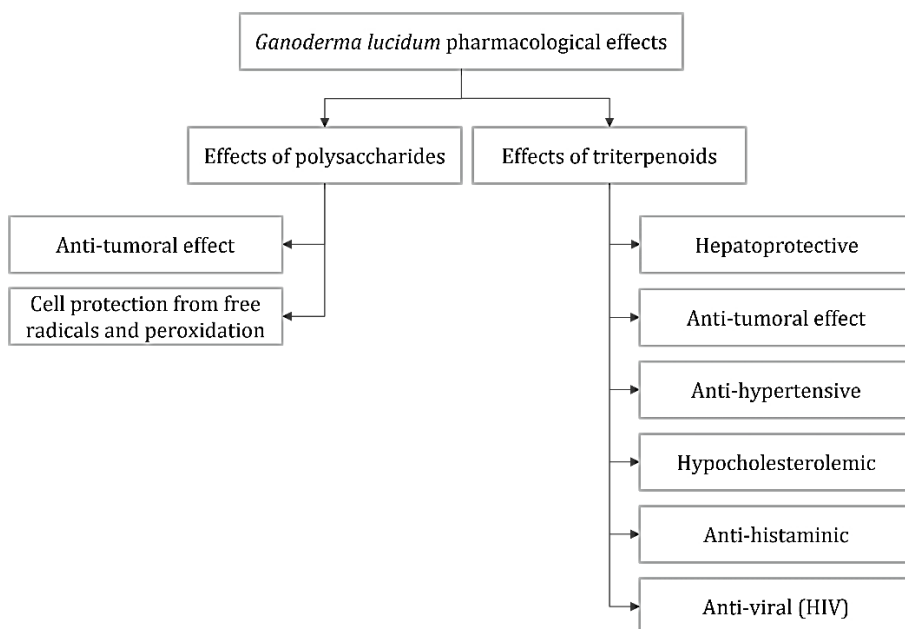
Polysaccharides are important elements in both the pharmaceutical and food industries, due to their ability to defend the body against pathogens through various mechanisms [11]. These compounds are able to interact with the immune system and to enhance mechanisms of response. Its structure is composed of long-chain sugar molecules linked together by glycosidic bonds. Numerous types of them have been isolated in the *Ganoderma* species. Polysaccharides from this mushroom have heteropolymers with high molecular weight where the major components are glucose, mannose, galactose, and fructose. [12, 13]. Fig. 7 represents the side-chain of  $\beta$ -glucan with protein in polysaccharide-K [14].



**Fig. 7  $\beta$ -glucan side-chain**

## Therapeutical applications

*Ganoderma lucidum* is known to have a very wide range of pharmacological effects. Among these, we list the immuno-modulatory, hypocholesterolaemia, anti-inflammatory and analgesic, antitumor, antibacterial, antiviral, and antifungal, hepatoprotective, antidiabetic, antioxidant effects [5, 12, 15-17]. Today, it is used by a very large number of people especially as an adjuvant medication in the treatment of cancer, hepatitis, diabetes and for anti-aging property [12, 8]. Fig. 8 represents pharmacological actions of both compounds, polysaccharides and triterpenoids.



**Fig. 8 *Ganoderma lucidum* pharmacological effects**

### Anti-inflammatory properties

The anti-inflammatory action is achieved by inhibiting the activity of cyclooxygenase enzymes, which are responsible for the production of prostaglandins. A study related by Joseph et al. [3] showed that the chloroform extract of *G. lucidum* has huge inhibitory potential of the inflammation induced by carrageenan and formalin, in the mice paws. The chloroform extract showed a 73,4% reduction at a concentration of 100mg/kg body weight, and a 63,2% reduction of inflammation at a concentration of 50mg/kg body weight of chloroform extract from the *G. lucidum* for carrageenan-induced inflammation. A reduction in inflammation of 63,4% and 53,4% for the same concentrations was observed in formalin-induced inflammation in the oedematous paw of the mice. For the standard reference, the study used the anti-inflammatory drug diclofenac, which showed an inhibition of oedemas of 53,0% and 40,2% for the same concentrations [3].

## Anti-tumoral activity

The anti-tumoral effect of different *G. lucidum* extracts has been intensively studied by several groups of researchers. A study showed that the ethanolic extract of *G. lucidum*, which contains a high number of phenolic compounds, indicates antiproliferative activity in human cervical carcinoma, human alveolar basal adenocarcinoma, and human colon carcinoma [19]. Following the analysis, the author related an important correlation between the antiproliferative activity against human cervical carcinoma and the total phenolic compounds, and antiproliferative activity against human alveolar basal adenocarcinoma and total glucans content. The most abundant phenolic compounds were hesperetin and naringenin, for each analysed sample of the study [19]. In another study, an important part of the antiproliferative activity against cancer cell line is attributed to the high content of total phenolic compounds such as resveratrol and apigenin. Quantitative analysis of the total polyphenolic compounds showed that from 13,991.10 mg of total polyphenolic compounds per 100g of the extract, resveratrol was the most abundant with 5155,70 mg and apigenin with 4039.08 mg [20].

The clinical potential and a wide acceptance of extracts obtained from *G. lucidum* in terms of its antitumoral activity as an alternative therapy have developed interest in the research of its molecular mechanisms. [21]. In table 2 and 3 are related applications, activities, and mechanism of action of different *G. lucidum* extracts and for purified Ganoderic acids on multiple types of cancer cells.

**Table 2 *G. lucidum* extracts- applications, activities and mechanism of action**

<b>Ganoderma lucidum extracts</b>	<b>Antitumoral applications</b>	<b>Mechanism of action</b>	<b>References</b>
<b>Dried powder of <i>G. lucidum</i> dissolved in boiled water</b>	Invasive breast cancer Prostate cancer	Produces down-regulation of transcription factors AP-1 and NF-κB in cancer cells.	[22]
<b>Hot water extraction</b>	Drug-sensitive (H69) and multi-drug resistant (VPA) human SCLC (small-cell lung cancer) cells.	Both cells show equal cytotoxicity	[23]
<b>Ethanolic extract of <i>G. lucidum</i></b>	Human Urothelial cells (bladder cancer)	In vitro – ethanolic extract exhibits a potent inhibition and induces	[24]



		growth arrest and cell migration	
<b>Methanolic extract</b>	Inhibit several cancer cell lines including hematological cell lines (lymphomas and multiple myelomas)	Upregulation of p21/p27 Induction of cell line arrest	[25]

**Table 3 Subtypes of Ganoderic Acids- applications, activities and mechanism of action**

<b>Subtypes of Ganoderic Acids</b>	<b>Antitumoral applications</b>	<b>Mechanism of action</b>	<b>References</b>
<b>Ganoderic Acid X (GA-X)</b>	Hepatoma cells Colorectal carcinoma Acute promyelocyte leukemia	In Human Hepatoma (HuH-7) cells - GAX caused immediate inhibition of DNA synthesis and activation of ERK and JNK mitogen-activated protein kinases. <i>In vitro</i> - inhibit topoisomerases I and II $\alpha$	[26]
<b>Ganoderic Acids T (GA-T)</b>	Human metastatic lung carcinoma (95-D)	Apoptosis induction and cell line arrest at G (1) phase Induce cytotoxicity in human carcinoma cell lines in a dose-dependent manner, less toxic to normal human cell lines.	[27]

## Anti-allergic property

The first line in the treatment of minor allergies are histamine H1 receptor antagonists. However, they respond poorly to acute hives or pruritic diseases [16]. Thus, studies to develop new adjuvant treatments based on *G. lucidum* extract against symptoms that are resistant to antihistamines are ongoing. Studies have shown that the properties of mushrooms from the Ganodermataceae family are able to restore the balance between TH1 and TH2 immune states [28]. In addition, there have been studies linking the potential of polysaccharides extracted from *G. lucidum* to the process of restoring IL-2 production that has been inhibited by the aging process observed in mice [29]. Powell studied the efficacy of unfractionated *G. lucidum* to determine the role of the medicinal fungus in managing the histamine-mediated immune response. The experiment took two males of different ages into the study. The first man aged 39, who had suffered from hay fever as a child, was initially given a dose of *G. lucidum* tablets of 3g per day (6 tablets x 500mg) with maintenance of this dose until symptoms subsided. The process of maintaining and decreasing the dose to 1.5g per day (3 tablets x 500mg) showed a significant decrease in symptoms after 10 days of treatment. The second subject, a 5-year-old male who developed hay fever at the age of 4, was given an initial dose of 1g per day (2 tablets x 500mg) maintained until the end of the season. For the youngest subject, a 90% reduction in symptoms was achieved after one week. A review article, reported by Sanodiya et al. 2009 [6], synthesized studies showing inhibition of histamine release by mast cells from rat subjects, finding that ganoderic acids C and D, for the first time, played an important role in the inhibition of histamine release. Also, the compound cyclo-octasulfur found in *G. lucidum* composition inhibited the release of histamine from peritoneal mast cells of rat subjects, justified by membrane proteins interaction for inhibiting the Ca<sup>2+</sup> uptake causing for the benefit, blockade of histamine release [18].

## Anti-bacterial and anti-viral activity

There are many studies based on antiviral, antibacterial and antifungal treatment and they are aimed at discovering new herbal therapies. This approach is being considered due to patient neglect of anti-infectious therapies and the triggering of antibiotic resistance and adverse effects. The aim of these studies is to discover new factors that specifically inhibit antiviral and antibacterial activity without affecting the normal cell [30]. According to the literature, numerous experiments have been conducted to prove the efficacy of *G. lucidum* extract for further use as an antimicrobial or antiviral agent. Kim et al. [31], reported anti-herpetic activity of acidic protein bound polysaccharide, isolated from *G. lucidum*. The results showed potent antiviral activity against HSV-1 and HSV-2 [31]. Many studies have shown that antibacterial compounds in *G. lucidum* have inhibitory potential on gram-positive and gram-negative bacteria [32]. Both polysaccharide bioactive compounds and triterpenoids from *G. lucidum* have been shown to be effective in the antibacterial process [33]. Extracts provided from *G. lucidum* have been shown to exhibit antibiotic

properties by inhibiting the growth of gram-positive and gram-negative bacteria [34]. Many studies reporting that these properties have been conducted mostly on *Escherichia coli* and *Bacillus subtilis* [32]. From the studies, different levels of antibiotic activity against *Staphylococcus aureus*, *Salmonella sp.* and *Pseudomonas aeruginosa* are observed [35]. Another study showed that *G. lucidum* extract inhibits *Helicobacter pylori*, responsible for gastric ulcer formation [32]. Different extracts of *G. lucidum* have also been studied, but the methanolic extract showed antimicrobial activity against *Escherichia coli*, *Staphylococcus aureus* and *Pseudomonas aeruginosa* [36].

### **Immuno-modulatory and antioxidant property**

According to Joseph et al. 2018 [3] study, chloroform extract of *G. lucidum* shows significant superoxide anion, nitric oxide, and lipid peroxidation inhibition activity. Following these tests, *G. lucidum* presents a source of interest for its natural antioxidant properties for the medical, pharmaceutical, and cosmetic industries.

A lot of research has focused on the immune-modulatory activity of *G. lucidum*, a lot of them have shown that its activity is mainly due to the presence of polysaccharides components, proteins, and triterpenoids [37]. An effect of the activation of immune response stimulating T cells, macrophages and natural killer cells was reported in a study that have been carried out on the subjects, mice [38]. The same result has been shown by Wong et al. 2004, too [39].

A study by Shi et al. 2013 [40], defined the antioxidant and immunoregulatory potential of *Ganoderma* extract, obtaining four types of polysaccharide compounds (GLP-I, GLP-II, GLP-III, GLP-IV). For the structural characterization of the compounds, Fourier transform infrared spectroscopy (FTIR) was used, and to determine the monosaccharide composition. This analysis showed that structurally the four identified compounds are similar, but the monosaccharides composition is significantly different. GLP-III and GLP-IV were found to be composed of six types of monosaccharides while GLP-II was found to be composed of three types. The results showed that all four types of polysaccharides performed antioxidant activity in a dose-dependent concentration, moreover, GLP-III and GLP-IV exhibited a significant scavenging effect on hydroxyl radicals, ABTS radicals and DPPH free radicals. The same study showed that 40 µg/mL of GLP, significantly stimulates macrophage proliferation and higher nitric oxide production [40].

### **Conclusions**

*Ganoderma lucidum* is a traditional medicinal mushroom, appreciated for its many pharmacological effects and is increasingly consumed by the population to support a healthy life or as an adjuvant treatment in various acute or chronic diseases. Due to the numerous studies that have been carried out on both mice and humans, it can be concluded that the pharmacological effects of the medicinal mushroom are confirmed by the abundant presence of polysaccharides and triterpenoids, and in most studies,

there was no evidence of renal or hepatic toxicity or changes in DNA genes [41]. However, there is a lack of studies on topical administration of *G. lucidum* extract and its possible pharmacological effects for epithelial regeneration as well as its anti-aging effect.

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## Documenting Distinctive Features of Indigenous Bapedi Music

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### Abstract

In the Bapedi music tradition, characteristics, and the role of indigenous music in the community is one area that requires scholarly attention. An investigation into the use and influence of pure, natural, and authentic indigenous music in the context of religion and wellbeing is inevitable. The purpose of this study was to investigate the significant role played by indigenous music in the daily lives of Bapedi people, as well as the characteristics of the music. To address the objectives of the study, the following primary research question was considered: what is the cultural relevance of indigenous Bapedi music? The primary sources for data collection include observations and oral interviews that were conducted through face-to-face interaction. The interviews were aimed at eliciting first-hand information on the knowledge of the subject matter. The secondary sources included among others, materials such as journal articles, books and theses, and of course personal experience. The results have shown that indigenous Bapedi music is a social activity in which everyone participates and requires coordinated cooperation. It was concluded that Bapedi people use a wide variety of sounds within a single performance. The impression created during observations and interviews was that music rhythm and percussive sounds are highly emphasized in indigenous Bapedi music.

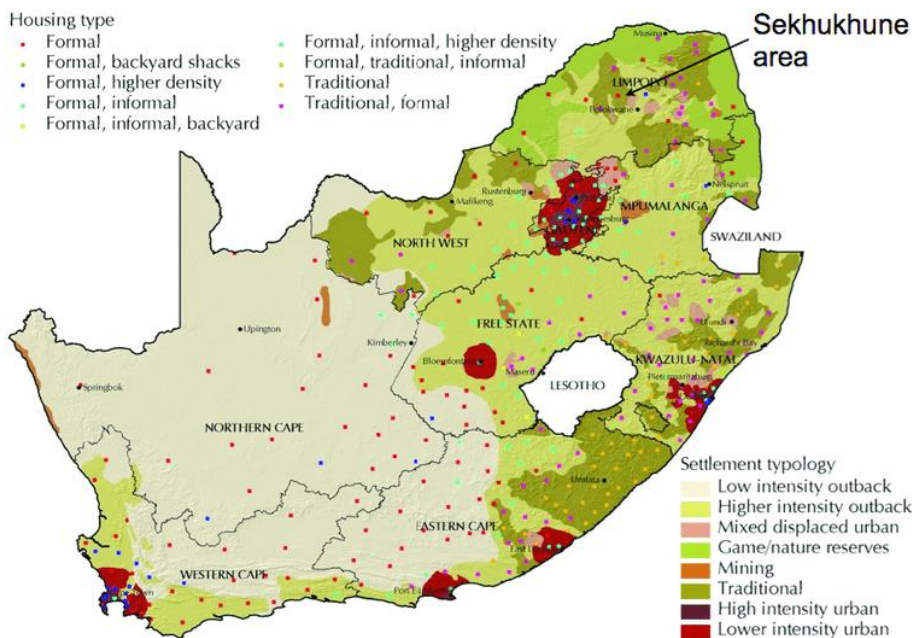
**Keywords:** Bapedi people, indigenous music, Bapedi music tradition, religion, well-being.

### Introduction

Bapedi people are found in Limpopo Province, but a large percentage of this ethnic group is situated in Sekhukhune area (**see figure 1**). Indigenous Bapedi music is unique. Performing indigenous music and making indigenous musical instruments is an integral part of the Bapedi community and it varies not only from traditional dance group to traditional dance group but from village to village. Indigenous Bapedi music is a total art form closely linked to dance, gesture, and dramatization. It permeates Bapedi people's way of life and has a function, and a role to play in the Bapedi society. Songs are used for religious



ceremonies and rituals, to teach and give guidance, to tell stories, to mark the stages of life and death, and to provide political guidance or express discontent. They also serve to entertain and are used in ceremonial and cultural festivals. Singing, dancing, and playing indigenous Bapedi musical instruments ensure that a dynamic event transpires. The impact of the music is tantamount; the beauty of it, like African sculpture, is secondary to the primary function. Performances may be long and often involve the participation of the audience and much of it is associated with a particular dance. Historically, indigenous Bapedi music was attributed to the collective society and not to individual musicians; and this is still happening, perpetuated by traditional music practitioners in contemporary Bapedi society.



**Figure 1:** Geographical Location Map of South Africa showing Limpopo Province & Sekhukhune area.

[https://www.google.com/search?rlz=1C1CHBD\\_enZA954ZA954&q=Local+municipalities+in+Sekhukhune+District&tbm=isch&source=iu&ictx=1&vet=1&biw=1280&bih=609&dpr=15](https://www.google.com/search?rlz=1C1CHBD_enZA954ZA954&q=Local+municipalities+in+Sekhukhune+District&tbm=isch&source=iu&ictx=1&vet=1&biw=1280&bih=609&dpr=15); [accessed 07 February 2023].

### Theoretical Perspective

This study is underpinned by a Cultural Theory of Education as proposed by Frederick Gearing and his research partners (1975). The theory reflects the

approach which tries to deal with most of the information which is used in the normal course of events by most of the people in a community (Gearing et al. 1975:2). The theory focuses on the development of relational competencies that are necessary to create and sustain social cohesion and growth-fostering relationships, such as the capacity to recognize and attend to the needs of others. It seeks to define heuristic concepts of culture. With this theory, Frederick Gearing and his research partners tried of an investigation which is improbably ambitious. According to these scholars, their investigation addressed a contemporary community of some size and complexity; for example, a neighbourhood which is ethnically heterogeneous and mixed in terms of economic class (1975:4). The theory also seeks to describe the community's total education structure, which is to say the full array of regularly recurring face-to-face interchanges through which all salient items from the community's full pool of cognitively organized information is regularly distributed and redistributed among the members of the community across the generations. According to these scholars, such an ambitious investigation required a team at work over some duration. Summarizing their consensus opinion, these scholars believe that cultural theory of education is far from "finished". They advocate that the cultural theory of education (in contrast to the individual empirical studies) reflects collective efforts (Gearing et al. 1975:9). Theoretically, this school of thought contributes to the notion that there is no individual who can live in isolation. This theory reminds us to belong to somewhere in the community and participate fully in any if not all cultural activities. The theory is applicable to this study because with this study, the author is trying to deal with most of the information pertaining to Bapedi music tradition. In approximation to the present study, the theory tries to create and sustain social cohesion and growth-fostering relationships, such as the capacity to recognize and attend to the needs of others. This study also addressed a contemporary Bapedi society of some size, and a complexity of different music genres found in the Bapedi society, but also described the structure of Bapedi people's indigenous music and their mode of transmission. The theory is adopted for this study, because indigenous Bapedi music is attributed to the collective society and not to individual musicians. Like the author's contention, the theory contributes to the notion of communal undertaking which promotes social cohesion, knowledge sharing and skills' transference.

## Previous related studies

Multiple studies have been conducted to investigate the role of music in the community (Aluede 2012; Amlor 2016; Boer & Abubakar 2014; Breidlid 2009; Demmrich 2020; Ekanem 2012; Eze & Van der Wal 2020; Flandreau 2016; Frith 2004; Idang 2015; Ikechukwu 2013; Le Roux & Sauer 2016; Luhrmann et al. 2021; Maila & Loubser 2003; Mbaegbu 2015; Mkabela 2005; Ndemanu 2018; Ruud 2013; Silverman 2018; Stevenson 2018; Teffera 2006). In particular, Idang (2015:100) opines that culture has been classified into its material and non-material aspects. He believes that while material culture refers to the visible tactile objects which man can manufacture for the purposes of human survival; non-material culture comprises of the norms and mores of the people (2015:100). Idang further postulates that culture is dynamic in the sense that it is continually changing. He is of the opinion that the value of a thing, be it an object or a belief, is normally defined as its worth (2015:100). Corroborating the above observations, Teffera (2006:44) writes that traditional musical instruments among other things serve in the various kingdoms as court music instruments predominantly for the entertainment of the royal regalia. According to Teffera, additionally other music instruments such as gourd or calabash rattles, drums, and wooden concussion idiophones also play an important role in accompanying the flute or trumpet ensembles (2006:44). He has observed that aerophones such as closed bamboo flutes and open-ended calabash trumpets without finger holes produce a single tone so that a full melodic line will be created while playing together (2006:44). In the same vein, Ruud (2013:1) has observed that some people may sing, participate in a choir, dance to music, compose songs, play precomposed music, or play in a band as part of a reflexive strategy to improve their health and well-being. According to Ruud, music is used on a regular basis to refocus one's attention or address and align oneself with troubling memories to spark an emotional catharsis (2013:6). Ruud asserts that music therapists have traditionally resisted a concept of music as 'work' and have instead embraced more processual conceptions of music, where contextual, music-structural, and individual circumstances influence its interpretation and experience (2013:7).

One recent study showed the role played by long social connections and a pleasant interactive experience among traditional Bapedi music practitioners (Lebaka, 2023). In his study, Lebaka has observed that music is not alien or extraneous to the Bapedi people, but part of the Bapedi culture (2023:1). During his study, it has also emerged that among traditional Bapedi music practitioners, communal music-making plays a vital role in

knowledge/expertise sharing, and musical creativity revolves around improvisation, recreation, and variation (2023:8).

## Research strategy

To achieve the objectives of the study, the primary sources for data collection included observations and oral interviews that were conducted through face-to-face interaction. The interviews were aimed at eliciting first-hand information on the knowledge of the subject matter. Participants were selected because of their knowledgeable and informative qualities. The secondary sources included among others, materials such as journal articles, books and theses, and of course personal experience. The main objective of this research study focused on the significant role played by indigenous music in the daily lives of Bapedi people, as well as the characteristics of the music. Therefore, special attention has been given to distinctive features of indigenous Bapedi music. Literary evidence has shown that very little has been documented about indigenous Bapedi music. To fill this gap in the literature, I aimed to study the relevance of indigenous music within Bapedi people's cultural context. My point of departure was to conduct field research in Sekhukhune area, to get first-hand information about the relevance of indigenous music in the Bapedi culture. My primary concern in this study is to appraise and reconstruct Bapedi culture and African culture in general. The study is primarily motivated by the fact that indigenous music plays an indispensable role in the daily lives of the Bapedi people.

## Results and Discussion

### Polyrhythm

During observations and interviews, it was established that within Bapedi peoples' cultural context rhythm and percussive sounds are highly emphasized. It was further observed that several different rhythmic patterns are played at the same time and repeated over and over (**see figure 2**). It is worth noting that indigenous Bapedi music such as '*Salane*' (**see table 1**), is characterized by many rhythms such as interlocking rhythms, inherent rhythms, etc. It has emerged from the interviews that *malopo* songs do not have the same ritualistic value, and the song '*Salane*' is regarded by Bapedi traditional healers as the most important vehicle to communicate with their ancestors. It is a truism that these rhythms may vary from one song or performance to the other. This viewpoint is endorsed by Mbaegbu (2015:176), who notes that black Africa shows certain cultural unity. In a similar vein, Ruud

(2015:7) postulates that there are many ways of conceptualizing music. He contends that different disciplines within musicology are linked through shared underlying assumptions about the very nature of music (2015:7).

The image shows a handwritten transcription of the song 'Salane'. It is organized into a grid with 24 columns representing measures and several rows for different rhythmic elements. The rows are: Drum 1 (Rhythm, Hands, Zones, Tones), Drum 2 (Rhythm, Hands, Zones, Tones), Drum 3 (Rhythm, Hands, Zones, Tones), FEET, and CLAPPING. The transcription uses musical notation for rhythm and specific letters (R, L, Z, Y) for hands and zones, and circles for tones. The clapping section is marked with 'X' symbols.

**Figure 2:** Transcription of the song ‘Salane’ (my transcription); drumming, dancing, and hand-clapping rhythmic patterns.

**Song text and translation**

Sepedi	English
Ngwakong wa tate go na le madulo a mantšhi	In the house of my father, there are many dwelling seats.
Rena ka Sione re ka se ye	We shall never go to Zion.
Re ya gae ga Mmotla	We are going home at Mmotla’s place.
Ga Mmotla wa kgoro ya boraro	At Mmotla’s home in the third kraal
Re ile go hwetša tatago rena	We are going to see our father.
Hlabirwa se hlwela boroko	Hlabirwa, who is always asleep.

<p>Sebodu sa mapompana se kae? Mogatša Pheladi O phasitše bongaka, o phasitše lehu la gago</p>	<p>Where is the laziest person? Pheladi's husband You have qualified as a traditional healer; you have passed your death.</p>
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**Table 1:** *Malopo* song 'Salane'.

### Explanation of the symbolism

The song 'Salane' is only sung when problems seem particularly difficult to surmount. It is sung when traditional healers encounter problems with respect to the divination bones. In case the traditional healer cannot interpret the divination bones, or during the healing process, there is slowly recovery by the patient and during the first step (*go tielwa*) of the training session when the trainee does not fall and disclose what the personal ancestor requires from him/her. The primary purpose of singing this song is to summon the ancestors to intervene in case problems are encountered. During my field research I have observed that always when traditional healers and their trainees enter the homestead where *malopo* ritual is to be performed, this is the first song to be sung, to invite their ancestors to join them and protect them against any harmful effects which may prevail. It is also sung when the ritual is over, especially when participants disperse to their respective homes. By singing the song, both traditional healers and their trainees invite their ancestors to protect them on their way back home. The central message of this song is that:

You have trained as a traditional healer, satisfied all the requirements as a traditional healer, and qualified as a traditional healer, but take care and look after yourself because you have qualified for your death, for other traditional healers will be jealous in case you are good, prosperous and productive, and have many patients, making a lot of money. The assumption is that they may attempt to kill you. Take care and look after yourself.

### Call & Response

It has emerged during the study that in the Bapedi culture, traditional music practitioners compose their indigenous music through frequent rehearsals which are open to criticism from their listening participants/audience. Much of what they do when they interact with others during communal music-making is based on call-and-response technique, as well as imitation.

According to Morogwa Angelinah Tshela (personal communication, 25 July 2016), some songs give equal or greater weight to the words than the music, while others give more attention to the structure and form of the music than

the words. Based on the above observation, it is evident that during communal music-making, the context of music-making whereby call-and-response pattern is employed, is a natural way of combining enjoyment with education.

In the Bapedi culture, personification is so common that it has become a common place expression in everyday language of the society. In this culture, indigenous songs are characterized by a call and response singing technique pattern. The chorus is mainly done by all participants (respondents), the soloist exclusive, but some villagers attend many rehearsals and performances during social, cultural, and ritual ceremonies and can also join in the chorus. Villagers mainly support the singers and dancers by hand clapping.

### Repetition

During interviews and observations, it was established that indigenous Bapedi music is repetitive. A large percentage of the songs have short phrases (**see table 2**), and very easy to memorise. The repetitive, structured, often danced –with sounds of music are found in almost every society – along with language. There is something deeply human about music, but deeply cultural about it as well. Congruent to the above observations, Demmrich (2020:36) writes that monotony, repetition, and simplicity of the ideally purely instrumental music – as we know from drumming, gonging, or clapping – stimulate neuropsychological processes (theta brain waves), which in turn elicit religious experience. Demmrich further notes that in contrast, vocals and especially meaningful words are seen as an intellectual stimulation that can disrupt religious experience during music listening (2020:37). In his view, a disruption due to less repetition and simplicity can also occur during Christian organ music, which can stimulate religious experience only slightly among church-socialized individuals (2020:37).

### Song text and translation

Sepedi	English
Ba bolaile Mmangakane	They have killed Mmangakane.
Mosadi o moso, moloji	A black woman who is a witch.
Lentsu la ka ke makgwakgwa	My voice is not clear.
Le gana ge ke goeletša	I am unable to call louder.
Mmangakane moloji	Mmangakane, you are a witch woman.

**Table 3:** *Malopo* song ‘Mmangakane’.

## Explanation of the symbolism

The song '*Mmangakane*' is dramatic. The singers (traditional healers and their trainees) feel bewildered and lonely. They think of all their loved ones, within and outside the family circle. They are lamenting that when they call their ancestors, their voices are not clear. They are frustrated because they cannot call louder and seemingly the ancestors cannot hear their call. The message put across here is that they feel lonely because all their loved ones from both immediate and extended families have passed on. They are earnestly appealing to their ancestors to bring them back, unfortunately ancestors cannot hear them as their voices are not clear and not audible enough for the ancestors to come to their rescue.

## Improvisation

After interacting with the traditional Bapedi musical practitioners, I have no reason to doubt that Bapedi people tend not to be interested in any music which lacks improvisation. Seemingly, the rhythm is in their blood. They like movement, moving to music and cannot sing or play instruments without moving to the music. It has emerged from this study that participants are not interested in any music genre whereby their creativity and innovation is suppressed. During observations, it was evident that within Bapedi people's cultural context, participating actively in music making, when needed, enables the participants understand Bapedi reed pipes' music artistically and contextually (Lebaka 2017:145). It was further observed that Bapedi reed pipes' music as a living art form, it is largely dependent on improvisation, recreation, and variation (**see photo 1**). These observations are endorsed by Teffera (2006:39), by asserting that the use of the hoquet technique is very important in constructing a complete melodic line. According to Teffera, the hoquet style in combination with the creation of polyphonic and polyrhythmic patterns is widely spread and applied in East African aerophone ensemble performances, as well as in other instrumental and vocal music practices of East African traditional music (2006:39).





**Photo 1**

Reed pipes' players, on their own, drawing upon their creative intelligence, use improvisation, re-creation, variation, and gestures to make their performances impressive (Ga-Marodi village, 20.10.2007), Photographer: Jukka Louhivuori (Lebaka 2017:145).

### **Drumming/Hand clapping**

In the Bapedi culture, like in African culture, the drum is generally regarded as the heart of the community. It is the most significant instrument as it reflects people's moods and emotions, and its rhythm holds dancers together. Indigenous Bapedi music like African music, is founded on drumming, accompanied by handclapping, and sometimes replaced by handclapping (**see photo 2**).



**Photo 2**

*Mathasana* (trainees) playing the drums placed between and held by the legs; Photographer: Morakeng Edward Kenneth Lebaka (Researcher); Place: Kotsiri village; Schoonoord area (Greater Sekhukhune District Municipality); Date: 22 July 1998.

During my research study of indigenous musics of all cultures in South Africa, I observed exceptional characteristic of the Ndebele music tradition, whereby drumming is replaced by a whistle to regulate the beat or tempo. Sharing insightful information about drumming in East African courts, Teffera (2006:37) writes that predominantly, drum sets have intensively been used in many East African courts. According to Teffera, apart from their use as typical signal instruments for transmitting messages to the masses (for example in the kingdom of Buganda in Uganda), their presence in almost all musical events has always been very common (2006:37). Furthermore, he states that using drumming to accompany songs and dances, processions, state proclamations, and royal coronations has been a very common practice (2006:37). In the same vein, Ruud (2013:6) observes that it seems that music is used on a regular basis to refocus one's attention or address and align oneself with troubling memories to spark an emotional catharsis. Ruud reminds us that music offers itself as a mirror of an inner state and thus help the person to recognize, identify, distinguish, and finally tolerate the emotion that was produced in his/her interaction with the music (2013:9). He believes that music is used in the everyday life to regulate, maintain, and improve health (2013:10).

## **Democratic**

During the study, it was noticeable that in the Bapedi culture, music is a social activity in which almost everyone participates. Within Bapedi people's cultural context, it is democratic. Democracy implies the government of the people by the people and with the people. That simply implies that indigenous Bapedi music is the music of the people by the people and with the people. Indigenous Bapedi music is often collaborative and requires coordinated cooperation, in which participants belong to "constituencies" that are not similar but complementary. These observations are endorsed by Le Roux and Sauer (2016:165), who posit that music can be viewed as a metaphor for wholeness, symbolizing restoration, transcendence and relationships.

## **Melody**

From the cultural perspective of the Bapedi people, music highlights African values with various traditions accompanied by a melody. Many events of importance are celebrated with music, whether it is a marriage, a birth, or a ceremonial rite passage. There are songs that accompany grinding of corns, digging, chopping, and harvesting. There are songs of praise and criticism, and songs recounting history. As a result, music is often performed outdoors, in the streets, courtyards or village squares. Traditional Bapedi music practitioners use a wide variety of sounds within a single performance. A singer may shift from an open relaxed tone to one that is tighter and more constricted. Supporting the above views, Mbaegbu (2015:177) is of the opinion that the term 'music' means sounds made by playing instruments or 'singing'. According to Mbaegbu (2015:177) African music also includes any sound produced by the Africans with their mouths popularly known as the 'African voices' (2015:177). He further opines that the most important thing about any type of African music is that it has beauty of form and is intended to communicate some emotion (2015:177). He is convinced that music is not alien or extraneous to the African, but part of their culture (2015:177).

## **Emotions**

During observations and interviews, it was interesting to learn that indigenous Bapedi music can also tap into empathy inducing emotions that are assumed to be felt by the performers. This is supported by literary evidence that 'music with a fast tempo has been found to evoke positive emotions, such as happiness, excitement, delight, and liveliness, while music with slow tempo evokes negative emotions, such as sadness, depression and gravity' (Ruud

2013:7). Ruud (2013:9) states that music is very helpful in the emotional work that is necessary to integrate feelings of loss with other concomitant emotions. He is of the opinion that the impact of musically induced emotions is important (2013:9). In his view, research on music and emotion points to an element of emotional contagion when listening to or playing music (2013:9). In agreement with Ruud, Demmrich (2020:36) notes that people can cope with existential fear by identifying themselves with the two cultural symbol systems, music, and religion, since they represent a continuity of their own belief system beyond the limits of their own personal existence. Attesting to the above viewpoints, Le Roux and Sauer (2016:162), note that a whole person has physical, emotional, social, and spiritual dimensions. They believe that emotions are often mediators of spiritual awareness (2016:164).

### **Ululation**

It is worthwhile to mention here that ululation is one of the most familiar sounds in the Bapedi music tradition; a wailing or high cry formed with the mouth and tongue that changes between two or three notes and is used to show emotion at a ceremony. Singers will sometimes whisper, hum, grunt, yodel, shout and even imitate animal noises. It is noticeable that indigenous Bapedi music also combines aspects of dancing and playing instruments that are interwoven into the fabric of life. For example, the core of *malopo* rituals is vigorous dancing motivated by ululation. Spectators or audience ululate in support of ancestor worship and indeed men will not execute this, it is specifically meant for women.

### **Cycles**

During observations it was evident that much of indigenous Bapedi music is circular (**see figure 3**). This circular concept of time ultimately defines a structural set. The set represents a structural module from which the entire performance is derived. The performance consists of a steady ostinato framework of multi-concentric rhythms on which various manipulations of the set are realized by a leader (e.g., a lead drummer). It is in these complex structural manipulations (against a background of a steady ostinato referent) that Bapedi music tradition finds its finest rhythmic qualities. During observations and interviews, it was also established that most of indigenous Bapedi songs are short and repetitive (**see table 3**), and the melodic phrases are mostly repeated in a cyclic form. Tones an interval of a fifth apart (i.e., that have a kind of tonic dominant relationship or 'soh-doh' relationship) were often heard almost in all the songs, produced by beating on the drums. This

tonal relationship is expressed in the notation, by placing the drum pitches on two different visual levels. An example of such drumming patterns heard at Ga-Maloma village (Schoonoord) area is the following:

Example of drumming patterns

Name of the song: 'Šibišana Mašabela'.

Form number of the cycle:

14: 3+3+3+ [3+2]

The figure shows a handwritten transcription of the song 'Šibišana Mašabela'. It consists of several horizontal lines representing different rhythmic and musical elements:

- Rhythm:** A sequence of 14 notes on a staff, with a 'v' above the first measure.
- DRUM:** A section with four sub-lines:
  - Notes:** A sequence of notes corresponding to the rhythm above.
  - Letters:** A sequence of letters: S, d, s, d, s, d, s, d, s, d, s, d, s, d, s.
  - Hands:** A sequence of letters: L, R, L, R, L, R, L, R, L, R, L, R, L, R, L.
  - Zone:** A sequence of letters: z, z, z, z, z, z, z, z, z, z, z, z, z, z.
- FEEET:** A sequence of letters: R, L, R, L, R, L, R, L, R, L, R, L, R, L, R, L.
- CLAPPING:** A sequence of downward-pointing arrows indicating clapping points.
- Clapping patterns in conventional notation:** A musical staff with notes and stems, some with upward-pointing arrows, representing clapping patterns.

**Figure 3:** Transcription of the song 'Šibišana Mašabela' (my transcription); drumming, dancing, and hand-clapping rhythmic patterns.

Song text and translation

Sepedi	English
Šibišana Mašabela	Šibišana Mašabela
Ke moswa Mmakwapa	I am the youth called Mmakwapa
Ba re ka re ka bitša ga ba nkarabe	I call to my ancestors, and there is no response.
Badimo ba mphuraletše	Ancestors are angry with me.

**Table 3:** Malopo song 'Šibišana Mašabela'.

## Explanation of the symbolism

The song *Šibišane Mašabela* is sung during the first step (*go tielwa*). It is performed as a call to the ancestors to inform the patient (*lethasana*) of their demands. It is at this stage that the patient must disclose to the traditional healer what the personal ancestor expects from him/her. For example, a goat or cow with specific colour. In case some *malopo* songs are sung and there is no response from the personal ancestor, then this song is sung. In case disclosure fails, the last song to be sung will be '*Salane*'. Performing this song guarantees that the patient will fall and disclose what the ancestors are demanding from him/her. Seemingly, '*Salane*' is the most appropriate song to summon the ancestors especially when problems seem particularly difficult to surmount.

## Concluding Thoughts

The results have shown that indigenous Bapedi music is a social activity in which everyone participates and requires coordinated cooperation. It was concluded that Bapedi people use a wide variety of sounds within a single performance. The impression created during observations and interviews was that music rhythm and percussive sounds are highly emphasized in indigenous Bapedi music. It was further observed that participants and observers learn more quickly and with less effort when they are enjoying themselves. Based on the research findings of this study, it is evident that in the Bapedi society, the transmission of knowledge with special reference to indigenous music is centred on a systematic aural-oral learning progression.

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## **Meliorism in the Pragmatist Discourse between Truth, Morality and Education**

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### **Abstract**

Philosophy in its traditional sense is regarded as a discipline that focuses on thought, reason and ideas. It is indifferent to action, where psychology, sociology and anthropology have taken this role. The pragmatists concern is the gap between thought and action. Returning the attention to action led to pragmatism being seen and valued more as a moral philosophy and behavioral psychology. This is precisely where the interest of this philosophy lies; how people can improve themselves and the world, expressed with the concept of 'meliorism'. Before that, James, Piers, etc. enter the philosophical discourse, revealing the principles and methodology of the study itself, the meaning and explanation of phenomena. Hence, the connection between gnosiology and morality is essential. The issue becomes even more complex, because from the discovery of the truth it moves to human identity, culture and the need for progress. The concreteness of this optimistic philosophy is achieved through education. Meanwhile, the discourse will arise between the questions: What is the truth for pragmatists? How is the relationship between truth, individual and society expressed phenomenologically? How can it be passed without harsh frustrations towards progress?

**Keywords:** meliorism, gnosiology, morality, education

### **Introduction**

Pragmatism is a philosophical movement which started and was highly developed in the United States of America at the end of the 19th century and the beginning of the 20th century. Empiricism, romanticism and especially utilitarianism constitute the basis of this philosophical movement. Its main representatives are Charles Sanders Peirce (1839 – 1914), who is known as the founder of pragmatism (1870), formulating it first as a theory of meaning; William James (1842 – 1910), the most authoritative philosopher of this

movement; John Dewey (1859-1952), who was oriented towards education and social theories.

'Pragmatic' comes from the Greek '*pragma*' which means '*something done, a fact*' (Stumpf, 2000, p. 383) and '*pragmaticos*' means '*something active, the action of a man who knows how to do something concrete*'. In ancient Greek the word '*praxis*' refers to activity or commitment by free people. Aristotle claimed that there were two basic human activities: thought (theory) and practice (doing, action), which connected them to four causes: formal, material, operative and final (Stumpf, 2000, p. 90). In other words, pragmatism is the ability and process by which a theory, lesson or knowledge is applied, realized. '*Praxis*' refers to the act of engaging, applying, performing, realizing or implementing ideas. Aristotle distinguishes two forms of knowledge, the practical ones gained from experience, which he calls '*Phronesis*' and the abstract and theoretical knowledge called '*episteme*' (Gadamer, 2004, p. 312). '*Phronesis*' means knowledge carried by an active being, who goes through varied experiences (knowledge), but never identical to each other.

Referring to this meaning, pragmatism is seen as a philosophy of action and concrete life. It has often been criticized as immoral and atheistic, sometimes equating it with cynicism, sometimes as a behavior of personal interest, to the limits of machiavellianism. However, the pragmatist position insists on the humanism of its views, because man is placed in the center. What is noted here is the inevitable connection between the methodology in discovering the truth and the experience of the knowing subject. The answer to the question, what constitutes the criterion of truth?...would simultaneously explain the nature of the relationship between the idea and the fact? Consequently, reflection leads us to the moral judgment of the meaning of the connection between principle and action, behavior or attitude.

### **The truth between idea and fact**

U. James explains us the relationship between fact and point of view. We should be interested in philosophy and also in the way we see or use fact. For example; a general is interested in the number of soldiers of the opposing army, but more essential for him would be the strategy, philosophy or form of organization of the opposing general. He will start to be interested in what ways he can use this fact, that is, the number of soldiers (James, 2005, p. 15). Fact and interpretation are in symbiosis and cannot be seen separated from each other. For James "... *the most interesting thing is how this philosophy determines the perspective on your world* " (James, 2005, p. 15), because it

emphasizes the inevitable relationship between the world and the human subject. Our perspective on the world, events, experiences, phenomena creates our entire reality, state and identity.

Mill earlier emphasized that man is the creator of himself and his world, because the mind is characterized by pragmatic limitlessness. The freedom understood in this idea means that man is not an imitator. He does not just choose the alternatives given to him, but has the ability to create according to his own way and experience. In Mill's notion, *freedom* is mostly a treatise on *individualism*. Individual freedom is understood as an independent but not isolated entity. The human being opens up to the world, creating himself. The notion of *eccentric* (Mill, 2015, p. 85), a term borrowed from astro-physics, illustrates the meaning of individuality. The subject is the center where the world is created, it manifests it as reality and this reality influences the entire social cosmos of which it is part. At the same time, during this process, the outside world also affects the subject. In this opening something new is always born, which sublimates the simple fact of being human. Precisely, this makes it special, authentic, not identical to others, thus creating a pluralistic human world. As a result, a value that Mill highly appreciates is obtained ; social diversity and diversity of life experiences. In this line of reasoning, James's pragmatism would affirm that we live in a plurality of worldviews (James, 2005, p. 19)..

The history of philosophy itself appears to us as a debate between two different attitudes, between empiricists and rationalists, where each side claims to have the right method to get to the truth. W. James does not like such a division between 'empiricists', who believe in the variety of facts, and on the other hand 'rationalists', who emphasize absolute, abstract and eternal principles. Like Schiller, James believes that "*Man needs both facts and principles, but the question is which one of them is emphasized more...?*" (James, 2005, p. 19). For a pragmatist to be intellectually satisfied "*... there is an attraction to the good things of both sides*" (James, 2005, p. 22). The world is sometimes understood as rational and sometimes as empirical, sometimes understood as one and sometimes as a diversity. The meaning of one absolutely does not exclude the other. We must accept this democratic principle of knowing the world. It is both this and that, "*... thus undertaking a kind of monistic pluralism*" (James, 2005, p. 22). Reality is a combination of the two attitudes. We must accept this symbiosis of two opposite sides of the world, however paradoxical it may seem. Consequently, first we have our viewpoint and then we act, we behave in accordance with our worldview. Also,

we should always respect the other individual, regardless of the contradiction we may have in terms of point of view or way of living.

On this account, pragmatists emphasize the notion of '*adaptation*'. Between the idea and the fact, the truth is found in the adaptation between them, that is, how the idea corresponds to the fact. Separated from each other we would have an empiricism without humanity and an illusory rationalism (James, 2005, p. 28).

### **The humanization of truth**

"According to the pragmatic principle, *we cannot reject any kind of hypothesis if it has consequences of value for life*" (James, 2005, 197). In this principle, truth is measured by value. But how does the truth take value? What differentiates the truth from the lie is the practical criterion. The truth is related to the situation, that's where it takes on value. The example James gives is this: "*If they ask me; What time is it?... and I tell you that I live at Irwin. Street 95', I may have told you the correct answer, but it is untrue because it does not apply*" (James, 2005, p. 168). So in this case, how to give the correct address as incorrect, it does not change anything, because it has no value for the concrete situation. Just as the triangle area formula holds true when we are measuring the area of the triangle. The formula remains worthless if we need to find the area of the square. We can give theoretical principles on the phenomenon, but if we do not respond to the demands of concrete circumstances, they remain empty discourses.

"...*pragmatism unified for people the realm of fact and value*" (Stumpf, 2000, p. 383). Obviously, pragmatism leans on empiricism, because it sets as a condition for the truth, its consequence in the concrete world. Principles and ideas in themselves, as abstractions of thought, become true, i.e. they take value only if they correspond to the factual reality. Meanwhile, reality is dynamic, diverse and changeable, this means that truth is random in ideas. Ideas are potentially true. The truth is a possibility and is realized only when it is good, and good for pragmatists means when it serves the concrete fact. So, the truth belongs to the occasion, the circumstances of the actuality, it is contextual. There are no eternal and universal principles. Different ideas serve to explain or give meaning to different situations. Hence, we postulate that there are no universal, eternal and absolute moral principles.

James claims that principles and concepts cannot supersede reality and dominate it. "...*theories become not answers to enigmas, but instruments that*

*can be helpful*" - writes James (James, 2005, p. 50). They can help us to explain and provide solutions to concrete experiences. In the sense of moral situations, they can be used as tools in order to deal with dilemmas, moral contradictions or to justify a certain behavior. Different theories and views on morality serve us to solve or understand diverse moral situations such as; duty, responsibility, right, good and bad. Pragmatism is seen as a solution to the theoretical contradictions of morality, providing the condition of value and practical utility. A moral situation is explained and understood by a theory or a set of ideas that discuss the event. While other moral theories, which do not respond to this reality, remain untrue. The starting point is not from abstraction, heavenly ideas, but their extension to earthly experience.

For Piers "*... thinking always occurs in a context and not detached from it*" (Sumf, 2000, p. 384). The truth of the pragmatists is presented as a symbiosis between rationalism and empiricism. Here the humanism of pragmatism appears, where truth and understanding derive from experience (Stumpf, 2000, p. 384). Human experience underlies everything. In this sense, truth is part of the process of experience and not separate from it. We must explain the truth of the event, referring to its own requirements. Phenomena should be judged based on the authenticity of the claims, where the situation gives value to the idea.

Morally, it is seen as a behavior that expresses thought, where thought also shows behavior at the same time. Morality is formed as a connection or perfect match of idea with behavior. For example, my belief, value and principle is not to steal, so is the action, but when someone steals to survive, I give up my original principle and start judging based on the specific circumstances, justifying the action of someone who stole. Then I think that stealing is punishable, but in the conditions of survival it is acceptable, which means that I will also allow myself in the conditions of survival. But what if someone is just a lazy person and has brought himself to survival conditions, how will he be judged morally? If it is so, when the circumstances change, in the deepest sense of the situation, I will have to reformulate my principle: stealing is punishable, but in the conditions of survival and absolute impossibility, I would also allow myself to carry out this act. Indirectly I morally condemn laziness. Someone else can think differently, for him, above all, survival dominates regardless of the causes so in this case his principle will be: stealing is punishable, but in the conditions of survival, regardless of the factors that have led me to this state, I would also commit it as act. So the principle matches the action perfectly.

At the core of pragmatist philosophy lies human life, because "... *practical means the way in which thought leads to action*" (Stumpf, 2000f, p. 382). Piers shares the opinion that "... *our beliefs serve as rules for action*" (James, 2005, p. 45). Our behavior, actions or attitudes depend entirely on the thoughts, beliefs, worldview or personal values in which we believe or identify ourselves as particular individuals. Good or bad, right or wrong, is always judged by personal conviction and worldview. Then between thought and action lies faith. For Piers there are three forms of faith:

- a) *Persistence – belief in the ideas of culture and social tradition*
- b) *Authority – refers to the authority to act*
- c) *Metaphysics – the belief that something is acceptable from reason*

Which of these beliefs should we rely on? Piers rejects all three ***because they do not support the unique experience of the individual.***

Thus:

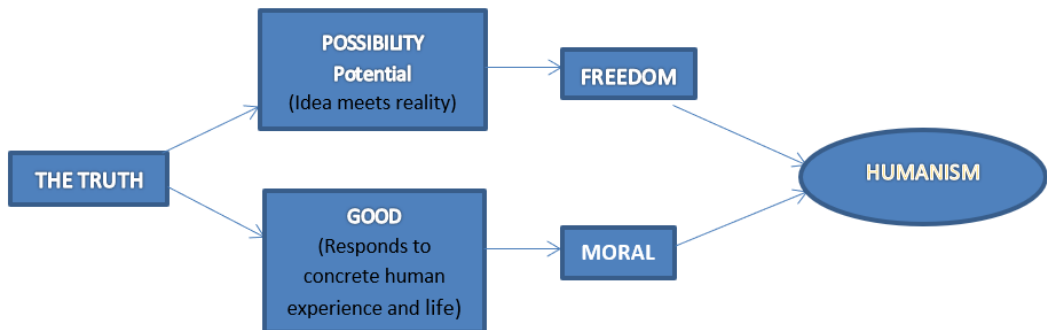
- a) *The method of persistence is an irrational action, it is an action from a blind faith.*
- b) *The method of authority excludes reflection*
- c) *The metaphysical method is realized by avoiding the facts (Stumpf, 2000, p.385)*

Further, Piers would emphasize that "... *the meaning of a thought is enough to clarify what behavior it will cause for us and that behavior is the only thing that matters*" (James, 2005, p. 45). By 'cause' we mean all kinds of concrete consequences. The effects it leaves as; certain feelings, reactions, behaviors or attitudes. The consequences of thought in a practical sense matter both for immediate and later effects.

From this reasoning, the question arises; does pragmatism defend the functionalist view? The answer is yes! Truth is called such if it has a practical function. Truth is utilitarian, and for utilitarians, utility is the essential criterion of moral justification. For James – "... *an idea is true as long as it serves our life. If you benefit from something, you accept with pleasure that it is good*" (James, 2005, p. 63) - James continues - "...*truth is a kind of good and not as it is usually considered - a category separated from the good that cooperates with the latter. Truth is called anything that gives evidence that it is good in the sense of belief and also for clear and certain reasons*" (James, 2005, p. 64). The truth is known from experience, that is, from what we really believe,

from our principles, ideas or worldviews. Pragmatism is a moral philosophy, because for it, ideas gain value if they serve the action, the concrete condition. Truth necessarily plays a function, and the function is understood as good. Logically, the truth is necessarily good, that is, it contains the good, because we really believe it as such or that it serves a concrete purpose. Truth is moral (good) and morality is knowledge (true).

Truth is a possibility for ideas, which correspond to the human moment, which means that truth is functional, that is, it responds to the authentic circumstances of experience. Understanding truth as possibility means that it responds to the spontaneous, dynamic and free character of man and social life. The truth is not imposed by building systems, where man is put at the service of the latter. If it has no function in human life or experience, then it is alienated into an oppressive mechanism. Thus for pragmatism, the truth is deeply humanistic, because in the center of attention there is man with his experience and perspectives, with his constant change, in a reality that is characterized by possibility or surprise, giving importance to the moment and his concrete (real) situation.



*Conceptual scheme of the humanization of truth according to pragmatic philosophy*

**- Meliorism: the moral progress of the individual and society**

*"Nothing is more powerful than an idea whose time has come."*

**Victor Hugo**

The mutual relationship between idea and experience is the essential point of pragmatism, as the criterion that reveals truth. It means that knowledge is presented to us as a matter of morality and morality as a matter of knowledge. Schiller and Dewey emphasize the fact that *"Ideas become true as long as they help us create good relationships with other parts of experience"* (James, 2005,

p. 53). Even here it is understood why people change their values and worldviews.

Man is a dynamic being, characterized by free will. He is constantly in a process of socialization and resocialization. Man shapes himself and his identity in a continuous process of doing and undoing, it is a process of self-creation that does not stop. "*The individual paradoxically has a set of old thoughts, but is faced with a new experience that puts them in a difficult position*" (James, 2005, p. 53). We constantly change ideas, attitudes, worldviews and beliefs, because experience always brings us to new, unknown circumstances, inexplicable for old concepts or principles. New ideas or situations do not follow a deterministic, certain order, because as we have emphasized, man is not only free to choose, but free to create and at the same time to create himself. Free will means opportunity. The opportunity, on the other hand, also justifies punishment, i.e. taking responsibility, because theft, lying, murder cannot even happen, regardless of the circumstances. Man is not only in the conditions of the choices of alternatives that are offered to him by the external reality, He is the creator and processor of the situation, that also brings it to the function of improvement.

This phenomenological relationship makes him special, not identical to others in his interpretation of the world and understanding of himself. You can clearly see the stoicism of the pragmatists with the principle: The world is as we make it. She is "*plastic*" - writes James (James, 2005, p. 178). We create reality, phenomena and events, and creation is simultaneously their recognition. We go out into the world and then use this experience to find ourselves, to understand ourselves, to be ourselves. (James, 2005, p. 141). In this perspective, for pragmatism "*free will is seen as a meliorist doctrine*" (James, 2005, p. 92).

Meliorism means that the world can be improved by human efforts. (<https://www.collinsdictionary.com/dictionary/english/meliorism>).

Meliorism is an idea of metaphysical thinking emphasizing progress. This concept shows how the truth leads to the improvement of the world. Humans, through their intervention in processes that would otherwise be natural, can produce an outcome that is an improvement of the world and themselves. Here pragmatists differ from Kant's idea that history operates on a plan that presents a progress of nature, which reaches an unification such as cosmopolis, or universal history (Sinani, 1999, p. 75). Meliorism is not a deterministic and linear process. The improvement can go in unthinkable and



unpredictable directions, this is because the very development of man and society goes through dynamic situations and circumstances are so special that it is almost impossible to generalize.

However, change does not come immediately. "Time and space, cause and effect, nature and history and biography of the individual are not affected. However, change does not come immediately. *"Time and space, cause and effect, nature and history and biography of the individual are not affected. The new truth is always a middle way, facilitating the transition. It connects the old thought with the new fact so that the knot is as little conspicuous as possible and the continuity as much as possible"* (James, 2005, p. 54). What is observed in this process is the discrepancy between the old worldview and the new experience. Precisely the contradictory (dialectical) situation also creates attitudes! The change of principles and attitudes comes in an evolutionary process, almost naturally, unconsciously. In the end, personal, authentic identity and moral behavior is an indicator of experience, of what we deeply believe, so it is shaped over time. Our morality stems from history and people's experiences are distinct from each other. The essence of history, of life experience, is that it is difficult to accept what is new, what changes our belief or worldview created in time. Therefore, we often remain conservative in the morals that come from our experience. Conservative of our time and this is where the clash of generations begins, eg parents are often authoritarian, moralistic and out of date because they trust their time, experience and morality, which is absolutely different from that of their children.

According to J. Dewey the source of evil can also be seen here. Evil does not come from the vital force that characterizes man. *"Evil is rather a product of the particular ways in which a culture shapes and conditions human impulses"* (Stumpf, 2000, p. 395). Evil arises from the immutability of the formed habit. Habit imposes certain behaviors by referring to predetermined, universal principles or rules, which are not interested in reading the specific situation and circumstances. Thus, the moral code of a society is seen as suppressing the need of man to change, to be himself or to interpret the situation, the dynamic and changing circumstances based on the experience of the individual worldview. The habit uses the same principles for different situations. Like that anecdote; that the one who was left in the well and the one who was left on top of the pillar were saved in the same way, by pulling the rope. To one it was valuable and helpful; to the other it caused pain. In the conditions of dynamic life, of diverse situations or diverse experiences, we find it impossible to create a list of rules as a moral prescription, which means that we cannot

form an ideal structure of moral principles, as habit does, because everything is judged in the particularity of the moment. Then the habit is placed in conflict with the necessity to change, refusing to immediately accept the new. This step comes as a result of time demanding acceptance, a kind of compromise for change that the old must make, showing the conflict between what is and what is to come.

### **Education as a necessary condition for the realization of meliorism**

The essential role to make the transition without harsh frustrations, from the old crystallized to the new experience, is taken by the intellect, for the very fact that it is not an entity that consists of static concepts. It has the power to face the environment and adapt to its authentic demands. Intellect is the means to move forward, to improve the situation, that is why Dewey, called his pragmatism '*instrumentalism*' (Stumpf, 2000, p. 394). The dialectic of man and societies appears in the conflict between habit, the idea of persistence as described by Piers or faith, his collective identity that constitutes the old and the special, new situation with the aim of regulating relations with the surroundings. The conflict develops between society and the individual as a special value. Pre-established principles and rules, hardened by tradition, indicate some ways of behavior, but not that they are always necessary. "... *the key to conceptualizing individual and social evil is changing the habits of society, its habits of reaction and thought*" (Stumpf, 2000, p. 395). The meliorist power belongs to education, because it perfects the instrument, that is, the intellect, which shakes the habit until its change and makes the individual and the creative society.

Improvement is seen as a sign of emancipation, which is an evolutionary process characterized by conflict. A kind of conflict where the subject is totally committed to solving it, even anxious to solve it. This is where the revolt, the rebellion appears, which show the moment of the explosion, the beginning of the new or the change for the better.

Societies that know how to maintain and manage this conflict are inclined towards development and improvement. However, this does not mean that the most ancient ways of thinking and living, even the most primitive ones, will disappear. "*The new truths are the result of new experiences and old truths, which combine and influence each other on both sides. And since this is how opinion changes today, we have no reason to suppose that it has not always been so. It follows that among all the late changes in human thought, very ancient ways of thinking may have survived. Even the most primitive ones have not*

*completely disappeared" (James, 2005, p. 126).* Thought which legitimizes the understanding of the individual and society today through history, ethnography and anthropology. Societies develop, but they also preserve what they were in the past, because as we said, the change is not revolutionary, as a complete separation from the old, but evolutionary. The change of man, his historical meaning based on life experience, developed within a certain social culture or tradition, is cultivated from generation to generation. Therefore, the collective identity, influencing the behavior, attitudes, and world views of the individual, is often explained on the basis of the historical times that the society has inherited. The old, the tradition, the past can be hidden, but from time to time, unconsciously, behaviors of the individual appear which belong to much earlier eras. For example; we as Albanian individuals or Albanian society sometimes bring out the Byzantine character, sometimes the Ottoman character; or different historical eras that have shaped the anthropocultural stratification from which our behavior and communication can be understood even today.

*As a conclusion:*

*a. Truth is a potential, possibility, where the idea meets dynamic reality.*

*b. The truth is random in ideas,* because it depends on the concrete situation with particular circumstances (authentic)

*c. Truth is moral (good),* because it responds to dynamic human nature, experience and concrete life.

*d. As a consequence of the above two points; pragmatism as a theory of truth is equivalent to humanism.*

*e. Pragmatism defends the meliorist view,* where it emphasizes the moral progress over time of man and societies

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## **What does it mean to be a good teacher? Beliefs of future secondary school teachers during their initial training in Spain**

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### **Abstract**

Teachers play a key role in students' learning, especially when it comes to students who have more difficulties in the classroom. Initial teacher training contributes to achieving more competent teachers who are capable of successfully facing the start of their teaching profession, and students' beliefs about what it means to be a good teacher are key. The prior beliefs and ideas with which future teachers come to university classrooms determine their first teaching identity and the beginning of their professional practice. In this paper, research focused on the beliefs of future secondary school teachers regarding what they consider constitutes a good teacher. A qualitative, biographical-descriptive methodology was used, in which the teaching students' narratives were used as a starting point to establish what characterizes a good teacher. The results show that future secondary school teachers place the relationship between the teacher and the students as the key factor when it comes to being a good teacher, above any other factor, which includes aspects related to the way in which the curriculum is taught.

**Keywords:** secondary education, initial teacher training, teacher identity, students with learning difficulties, beliefs.

### **Introduction**

In Spain, the initial training of future teachers is different for preschool and primary education compared to secondary education. A simultaneous training model is followed for the first stages of education. However, at the age of 18 preschool and primary teachers begin their teaching trajectory with the Bachelor's Degree in Early Childhood and Primary Education, in which the different curricular subjects of these stages (mathematics, social sciences, Spanish language, etc.) and their pedagogical training is intermingled. The initial training of secondary teachers in Spain, which will be the subject of our study, follows a consecutive model: first, individuals complete a four-year Bachelor's degree in any specific speciality (Geography and History, English, Mathematics, Economics, etc.) and then they go on to complete a one-year Master's degree which enables professionals to teach at this stage (Imbernón,

2019). One of the consequences of following this type of training model to become a secondary school teacher is that some students who study the Master's degree had no educational vocation when they began their Bachelor's degree, unlike those who directly started their studies at the Faculty of Education, who have very clear professional preferences and a predilection for teaching.

Students entering this master's degree in Secondary Teacher Training bring with them certain beliefs about what constitutes a good teacher and what does not, as a result of the time they have spent watching teachers work throughout their academic trajectory. Between the ages of 12 and 15, they have spent many hours observing teachers carrying out their practice and their performance in the classroom. This is what Bandura (1982) called observational learning, vicarious learning. In fact, quite a few of these students found a vocation for teaching because of the presence of some teachers who were a reference for them, some who were concerned not only about their learning, but also their more personal problems. Also, a good number of them go on to study a certain university degree related to the subject taught at school by their favourite teacher.

In spite of what they are taught by teachers in university classrooms during their initial training, future teachers will often resort, at the beginning of their teaching practice, to repeating the practices of teachers who have been an example and reference for them. Some authors argue that these beliefs are deeply rooted in the future teacher, and are not changed and transformed, in most cases, during their university training. They are therefore very important in the definition of an initial teacher identity (Garza et al., 2016; Vaillant and Marcelo, 2015).

The term professional teacher identity is a complex concept, which mainly answers questions such as: What am I like as a teacher? How do I exercise my profession? Every teacher has a teaching identity that is different from the rest and which is formed over time and throughout life. This identity comes from observing teachers in the classroom throughout their childhood and is developed until the end of the teacher's time in the profession. A teacher's professional identity is never finished (Berger and Lê Van, 2019; Buitrago-Bonilla and Cárdenas-Soler, 2017). Their first identity is a mixture of their previous beliefs, their initial university training and even the internships carried out in educational centres as part of their university education (Souto,

2018). We have already mentioned that these prior beliefs and ideas play a key role in the beginning of a teacher's career (Farren, 2016).

Good initial teacher training should be based on reflection and addressing these beliefs in university classes, questioning them, or confirming them as relevant to the professional practice. Students in training often complain of excessively theoretical classes. These beliefs could serve to escape this tendency towards theory and replace it with experiences closer to the reality of the classroom. Students who are being trained in the Secondary Teacher Training master's degree also complain about their initial training not being useful for the practical aspect of their profession (García-Rubio, 2021). According to the students themselves, the lack of practicality of the classes, together with the lack of coordination of the teaching staff in the teaching of the contents, are issues which could be improved.

On the other hand, the future teacher, having spent much of his or her life observing teaching, may think that teaching is easy. Nothing could be further from the truth. Many teachers, at the beginning of their professional practice, have great difficulties in being able to properly manage a class and find that the role of the teacher in the classroom is very complex. Significant competences are needed to be able to adequately carry out this profession (Hahl and Mikulec, 2018). Moreover, at the secondary school stage, the difficulties are increased as students with very different interests and motivations coexist in the classroom. In the same classroom, there are students who want to continue studying Bachillerato (non-compulsory secondary education or 11<sup>th</sup> and 12<sup>th</sup> grade), others who want to do Vocational Training, and also some who are waiting to turn 16, the compulsory age to be in school in Spain, to abandon their educational trajectory and look for a job.

We cannot forget that numerous studies consider teachers to be the main resource for improving students' educational performance (Gimeno, 2013; Mourshed, Chijioke and Barber, 2010). This is even more so in the case of students with severe learning difficulties. If the pandemic has shown us anything, it is the importance of going to school to interact with other students, but also the value of direct contact with teachers. If anyone needs good teachers, it is the students who have the most difficulties and the most negative educational trajectories. Students who are doing well do not need excellent teachers to the same extent because they have already acquired good habits.

The aim of this paper is to find out what beliefs and preconceptions future secondary school teachers in Spain have about what makes a good teacher:

What do they think constitutes being a good teacher? What qualities do they need to have?

## **Methodology**

Secondary education is characterised by the presence of young people with very different attitudes and interests, some with significant learning difficulties. This makes adequate teacher training all the more important. A teacher has to be trained throughout his or her life, but initial training is of fundamental importance in order to stay in the profession and not abandon it prematurely. The TALIS Report indicates that in some countries, such as the United Kingdom, the drop-out rate is as high as 50% (OECD, 2019). And in this initial training, as we have already mentioned, the beliefs of university students who are training to become teachers play a fundamental role.

To find out the beliefs of future secondary school teachers regarding what they consider it means to be a good teacher, we resorted to qualitative research from a biographical-narrative perspective (Bolívar et al., 2014). Through individual narratives, in this case of master's students, we were able to learn about their feelings, experiences and emotions, something that could not have been achieved with other research instruments. These narratives regarding what, in their opinion, constitutes a good teacher helped us access their memories and explore their beliefs and previous conceptions of teaching and learning (Bolívar and Domingo, 2019; Rodrigues and Mogarro, 2020).

Eighty university students participated. They were studying the master's degree in Education to become secondary school teachers during the 2021-22 academic year, in two different specialisations with 40 students each. At the beginning of the course, during the first classes, the students were asked to think about who their best teachers during their time at school had been and what their qualities made them the best. The students' narratives were identified with the letter E (student) and a number from 1 to 80.

Once all the narratives had been collected, in documents written by the students, an exhaustive data analysis was carried out, from which common characteristics emerged about what they considered were the qualities of a good teacher, and these were classified into different categories and subcategories. Following this content analysis, we identified the following categories and subcategories:

- Personal aspects of the teacher: which provides us with information about the most personal characteristics of the teacher and their commitment to the

profession. It is divided into two other categories: relationship with students (how they deal with students) and their attitude towards their profession (their commitment, motivation, vocation, etc.).

- Pedagogical aspects: which collects information on how teaching practice is carried out in the classroom in relation to the curriculum.

## Results

The research yielded results regarding the aspects that the future secondary school teachers most valued in their schoolteachers. Below is a summary of the overall results broken down into categories. The number appearing in the tables describes the frequency, the number of times students referred to these categories in their narratives. For ease of interpretation, they are also expressed in percentage terms.

**Table 1**

*Overall results of positive personal and pedagogical aspects of the teaching staff as reported by students*

Categories	Beginning of the Master's	
	n	%
Relationship with students	153	49,35
Professional attitude	42	13,55
Pedagogical aspects	115	37,10
Total	310	100

Source: Own elaboration

Table 1 shows how the personal aspects - the relationship with students and the attitude towards the profession - are more important for future secondary school teachers than the pedagogical aspects, with regard to the teachers they remember as having the most positive influence on their lives. Almost half of them, 49.35%, highlighted aspects concerning their relationship with the students as qualities of a good teacher, and less than 40%, 37.10%, pointed out the pedagogical aspects concerning the methodology used in the classroom,



the preparation of classes, the type of assessment carried out, etc., as important qualities.

One of the students made the following comment: "This person was such a bad teacher that the only thing they knew how to do was explain" (E57). This sentence sums up the previous table of results very well, as the student tries to emphasize that in addition to the curricular aspects, there are other aspects that they value much more highly in teachers. It is not enough to teach classes in the right way; the teaching staff must have human qualities which are highly valued and taken into account by the students.

Another student pointed out that "the teacher explained things to us with such enthusiasm that it was difficult not to pay attention. You could see that he liked what he was doing" (E24). A total of 13.55% highlighted the passion shown in the teaching activity, the enthusiasm transmitted to the students in order to achieve a good level of learning as one of the keys to being a good teacher. This raises the question of whether teachers need to have a vocation for the profession. In any profession, and even more so in this one, where you are working with young people all the time, you need to like what you do. This is certainly transmitted to the class and the young students perceive it.

In the results presented here, we intend to place special emphasis on the aspects that stand out about the relationship between teachers and students, which are presented below.

## Table 2

### *Subcategories found within the category relationship with the student*

Relationship with the student	Beginning of the Master's	
	n	%
Concern for everything that happens to students both in and out of class	43	53,75
Proximity to students, treating students as equals	28	35,00
Pleasant, kind, friendly and affectionate	25	31,25
Calm, serene, with a lot of patience.	20	25,00
An empathetic and very human person, listens and advises the student	17	21,25
A cheerful person, in a good mood, even funny	7	8,75

Respectful always with the students	6	7,50
A serious person, but friendly, pleasant	4	5,00
Equal treatment of all students	1	1,25
A leader and charismatic	1	1,25
Knows how to apply and maintain discipline	1	1,25

Source: Own elaboration

Table 2 shows the subcategories identified in the master's students' narratives of teachers' relationship with students. One of the aspects that stands out the most is "Concern for everything that happens to them". If the teacher shows interest in the student beyond pedagogical terms, it will generate a very important stimulus that will help the student connect with the teacher. One participant commented: "You knew that he was always there, for better or worse, and not only for class-related issues, but for everything" (E14). Teachers share a lot of time during the day in classrooms with students, but also in corridors and playgrounds. A relationship of mutual affection can be created, especially if the same teacher is present for several years.

Far from considering closeness as a problem, in their narratives, this quality, together with being empathetic, pleasant, and having a good dose of patience, is one of the most important: "It is not by raising your voice too much and keeping your distance too much that you achieve order in the classroom. This teacher managed to keep the order in class because we all respected and appreciated him" (E38). The calmness and serenity, away from any stridency with which the teacher teaches the class, is seen as a great value. They detested the teachers who were always grumpy and constantly losing their temper, and constantly threatening them with punishment. This is one of the main problems beginner teachers tend to have, knowing how to keep their cool and calm in the face of any problem that arises in the classroom. Good training, together with the necessary experience, will help teachers achieve this way of acting.

Being serious or cheerful is not the most important thing. One of the students commented: "He was very serious, but he was very approachable, and you knew that if you had a problem, he was attentive and concerned about solving it" (E7). Each teacher has his or her own personality, it is not about being different, but about showing interest in the students and creating a connection with them. If the teacher makes that connection, he/she has everything to gain

with the student: "Whenever he spoke to us, we always listened to him, because we really loved and appreciated him. He was a good person." (E31). This does not mean that students do not value teachers' ability to impose themselves when it is time, nor that teachers have to do what students want in order to be liked.

## **Discussion and Conclusions**

As a result of the conducted research, it has been possible to discover the beliefs and ideas held by future teachers at the beginning of the master's degree that will enable them to become teachers in an educational stage in which they will encounter significant difficulties to be solved in the day-to-day classroom.

It may come as a surprise to some that personal aspects, specifically the relationship between teachers and students, are what university students and future teachers value most when it comes to being a "good teacher". Therefore, as indicated by authors such as Day (2006), the connection established between teacher and student is what motivates one to continue teaching and the other to continue learning. Students do not highlight the teacher who taught their classes with a very innovative methodology so much, although they valued this aspect positively. Above all, they remember the teacher who cared about them and who was always there when they needed them. Those who were close and interested in the young person, in all their dimensions, and not only in their progress at school.

If teachers want to get students' attention, they have to establish a good rapport with their students, paying attention to their academic but also personal needs. Teachers' first mission is to ensure that students do not hate their subject, and to this end, the relationship established with the student is fundamental (Yoo and Carter, 2017). One of the main concerns for teachers starting to teach in schools is to maintain order in the classroom. A good relationship with students and a good classroom climate is the best help they can find to achieve this. Students shy away from teachers who are excessively authoritarian, constantly scolding and in a state of permanent tension (García-Rubio, 2022).

However, although the results obtained leave pedagogical issues in the background, this does not mean that they are not important for the students. It is not the most important, but it is important. They appreciate teachers who have good classroom practice, and who know how to teach knowledge. They

appreciate teachers who use an appropriate methodology, and who make classes attractive and participatory (Tardif, 2004). Many authors advocate playful and creative teaching to make students feel interested in the curricular content. If students are bored in class, learning will be more complicated and costly. Learning does not have to be incompatible with having a good time in class and even having fun; on the contrary, if something motivates you and you like it, it will make learning easier.

The study that has been carried out has focused on university students who are training for the secondary school profession. Future research could be conducted in the field of future preschool and primary school teachers, where, as we have pointed out above, the training model is different, with a mixture of pedagogy and the learning of academic subjects from the very beginning. The results could then be compared to see if they are similar, despite having different models of initial teacher training.

On the other hand, university classes for the initial training of these future secondary school teachers would be better and would reach them more if the problems addressed in them had a more practical utility for their professional practice and for the real problems they will encounter in schools. Combining practice and theory should be one of the main objectives of university teachers in this training. Starting with students' beliefs could contribute to achieving this purpose, and thus question or confirm the previous beliefs and ideas with which students come to the classroom.

The results obtained in this research should serve to highlight the importance of the relationship established between teachers and students and its influence on their motivation to learn. In initial teacher training, this aspect, which is sometimes thought to be of little importance, must be carefully taken care of and future teachers must be made aware of its enormous importance. Far from thinking that it is only important to learn how to plan classes in a methodologically appropriate way, teachers should take care of another series of aspects which have an even greater influence on whether students consider them to be good teachers.

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## **Correlations of Oral Hygiene and Health Behavior of Teenagers Living in the Cumulatively Disadvantaged Northern Region of Hungary**

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### **Abstract**

**Objective:** In the present research, we aim to highlight the urgent need for prevention and health education by exploring the oral health indicators of the most deprived groups in Northern Hungary, especially in the light of the severely negative effects (pandemic) and circumstances of the past years. **Material and Method:** The study included 111 students living in Borsod-Abaúj Zemplén county with a high level of disadvantage, but studying in a secondary school in a large city, average age 16.2±1.5 years, gender ratio 37.3/62.7(%). We performed a dental screening, completed a questionnaire on lifestyle and health behaviour, and used Rosenberg Self-Assessment Scale, Shame Experience Scale. **Results:** Dental status of the students is poor, with many decay and few filled teeth. They consumed energy drink, alcoholic drink (strong alcohol) in high percent, and this occurs great frequency in the family. Students exercise little outside of class, do not play sports regularly, and hardly ever see their parents playing sports. Students do little physical activity outside of school, do not play sport regularly and their parents are hardly ever seen playing sport. Their feelings of shame are minimal and their self-esteem low, many have special educational needs. **Conclusion:** Together, the results can increase the separation of these social groups to an extent that is already difficult to manage even at the level of society as a whole. All of this calls for cooperation between psychopedagogues, special education teachers and health professionals.

**Keywords:** health education, oral hygiene, health behavior, disadvantaged situation, special education teacher

## Introduction

Hungarian indicators of oral health are weak. In the ranking of the countries of the European Union, we are among the lasts, both in terms of children completely caries free and DMFT<sup>1</sup> values, based on the CECD<sup>2</sup> data base (Hajdú, Kertesi,2015). This situation was further worsened by the pandemic of the last three years as is confirmed by several international studies (Hertento,2022, Sari,2022). According to the conclusions of the study, the pandemic had a predictably bad effect on the oral health, especially in case of disadvantaged parents with low income. In Hungary this is enhanced by the fact, that preventive services are underutilized in both adult and pediatric dentistry (Pinke et al,2011). That didn't improve in the last decade either, based on HBSC<sup>3</sup> 2020 data.

It is a well-known fact that social-economic background and level of education have a great influence on the state of teeth (Faragó et al,2020)(Northridge et al,2020). In our research project we tried to assess the oral health status of people living in extreme poverty/poverty, in the light of brushing teeth and eating habits and the availability of primary prevention services. We also examined the form and extent of the various health behavior risk factors in this population.

In Hungary the risk of poverty is determined on the minimum subsistence level calculations by the Central Statistics Office (KSH). We can evaluate poverty, unemployment, old age, disability, housing problems and social exclusion as a social risk, which in the long run, imposes a heavy burden on all layers of society. A uniform metric is used to measure poverty in the European Union, the so-called AROPE (At Risk of Poverty or Social Exclusion) ratio. This represents the proportion of people exposed to social exclusion based on three indicators. Among these, the most common indicator is the so called 'Relative income poverty'. This measure represents the proportion of people living in households where 'net income does not reach 60% of the median income' (Dávid et al, 2021,p.373.). The other two measures in the dimension of deprivation and work intensity, give the ratio where they are forced to give up material possessions, and how many of them are out of the labour market (KSH,2020). According to this, 17.7% of the total population of Hungary lives in poverty and social exclusion. In Northern Hungary it characterizes every fourth family. People living here are twice as deprived as the national average (Dávid et al,2021).

In addition to all this, deep poverty is characterized by low education, segregation, unemployment and the existence of large families, as well as the chance that the disadvantaged situation will reappear.<sup>1</sup>

Cserti Csapó Tibor and Orsós Anna wrote in the 2013 book 'Equal opportunities in today's Hungary', that the 'young face of poverty' is dominant among people living in deep poverty.

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<sup>1</sup> DMFT: the sum of the number of Decayed, Missing and Filled Teeth in relation to the population

<sup>2</sup> CECD: the Council of European Chief Dental Officers, database 2015

<sup>3</sup> HBSC: Health Behaviour in School-aged Children



According to their data, 30% of the poor belong to the 0-17 age group. (Cserti, Orsós,2013,p.99). All of this is supported by the research we previously conducted in the small region of Abaúj (Kőrösi, Kiss-Tóth, 2020).

These marginalised groups are particularly difficult to reach with prevention programmes, dental education, and the usual methods. Unfortunately, the average population also has difficulties in this area, despite the fact that, in addition to curing diseases, a dentist must also think about their prevention. Every doctor is also an educator, who must fulfill an important educational role during his preventive work. It is not only an opportunity, but also a legal obligation. The current health law prescribes for dentists to actively participate in health education (Health Law, 1997, CLIV,79.8(bb)).

An important tool of health education is the permanent personal communication. It is not an easy task, since the majority of dentists don't have pedagogical knowledge that would help them in this. These skills may only develop over years, but according to experience they can be improved. Health education with pedagogical methods could be applied more effectively and more widely if specially trained teachers would do it together with dentists. This is especially true for cumulatively disadvantaged groups living in extreme poverty.

However, we must not forget the responsibility of the patient: not only the care system or health educators have a serious task in this issue. If the patient often cancels the visits, skips brushing and dental care procedures, step by step, he will get closer to irrevocable damage to his teeth and alveolus. In other words, the active cooperation of the patient and the healthcare workers is essential for the preservation of health.

Traditional ways of communication and traditional educational tools can be hardly used with the studied population. All this is even more important in the light of the data, according to which, in many cases, they either have special educational needs, or they also struggle with a behavioral disorder (Shenkin,2005).

The important goal of our present research, in addition to getting to know the the oral hygiene data, is to assess with the help of Rosenberg Self-esteem Scale and the Shame Experience Scale, what is the self –evaluation and how strong is the sense of shame in the studied population. In this way, an insight is indirectly gained into the way how the professionals could inculcate the prevention approach in these groups.

As revealed in an American study (Bersell,2017), the inaccessibility of dental care in disadvantaged groups calls for urgent steps. It is primarily in the field of prevention, that can only be implemented with the involvement of prevention specialists, stronger funding and greater support from allied professions.

### **Methods and data:**

Students living in the cumulatively disadvantaged settlements of Borsod-Abaúj-Zemplén county, but studying in a high school of a big city, participated in the data collection of our research. Beyond oral hygiene data, it extends to young people's lifestyle, psychosomatic condition, self-esteem and possible sense of shame. During the research, we completed a dental screening and a questionnaire for lifestyle and health behavior, and also used the Rosenberg Self-assesment Scale (Horváth et al,2022) and the Shame Experience Scale (Vizin, 2022).

With the help of these two scales we can get to know, how young people relate to themselves and to their possibly harmful health behavior. In case of RSES scale, the higher value shows greater self-esteem, while in the Shame Experience Scale higher values indicate the presence of a higher chronic shame.

During data collection we also used the Fagerström Test for Nicotine Dependence (FTND). The Fagerström Test for Nicotine Dependence can be used to evaluate the the nicotine addiction related to smoking. FTND is scored from 0 to 10. Higher the score, graeter the chance for a physical nicotine addiction. The shorter version of FTND is the Smoking Severity Index. With this tool heavy and light smokers can be identified more precisely (Pénzes, 2022).

The screening test was done by Dr. Ildiko Faragó, in a dental chair, under well-illuminated circumstances, with single used tools.

There were no radiological examinations performed.

To survey caries prevalance, DMFT values accepted by the WHO (1997) were recorded. D: decay, M: missing, F: filled, T:teeth ,where DMFT value is the amount of decay, missing and filled teeth for the studied population.

The questionnaires in the research were used with the help of measuring commissioners.

#### *Characteristics of the sample:*

111 people participated in the study, they were on average 16.2 +/- 1.5 years old. 62.7% of them were girls and 37.3% were boys.

### **Results**

#### **Social- economic background:**

The students' parents have a low-level of education. ( Figure 1.)

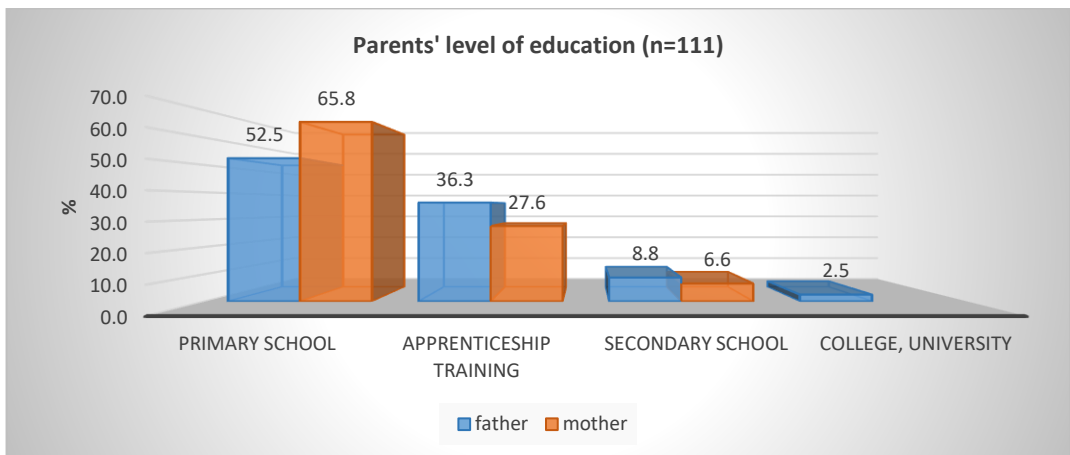


Figure 1. Parents' level of education in the study population

Based on the responses to the questionnaire, 52.5% of the fathers and 27.6% of the mothers have only primary education. 36.3% of the fathers and 27.6% of the mothers have vocational

qualifications. Significantly fewer people have a high school diploma: 8.8% of the fathers, 6.6% of the mothers. Only fathers have higher education: 2.5%.

28% of the parents do not work. They are among those with lower education.

On average the students live in a slightly larger than two -room apartment ( $x=2.2$ ). 12,8% of them live in a one-room apartment, 52.3% live in a two-room apartment, and 34.9% live with more than two rooms. On average 4.6 persons live in a household, 9.7% live in households with two people, but 50% live in households with more than 5 people. 5.6% of students live in households with more than 8 persons, but there are also students living in households with 10 people.

A student on average has 2.4 siblings. 17.3% of them have one sibling, 28% have two, but the most of them have three or more ones (48%). There are few only children among them (6.7%).

There is a weak correlation between the mother's education and the number of siblings. ( $r=-0.21$ ) Mothers with low education have more children.

The majority of bigger families live in larger apartments ( $r=0.52$ ). In the 11% of the families bringing up 3 or more children, there is no piped water. In 19% of the households there is no bathroom.

31.5% of the students don't have breakfast at home. Most of them regularly have cooked meal, but 38.1% of them eat cooked meal at home only at the weekends, and 6% of them do this very rarely. They don't really like soups (3.6%), they prefer pasta (21.6%), cooked vegetables (12.6%) and meat (13.5%).

58.1% of them consume energy drinks on a daily (33.7%) or weekly basis (26.5%). Boys and girls consume energy drinks in almost the same proportion, but boys consume a slightly higher proportion.

54.6% of the students drink alcohol with different frequencies. 27% of them consume alcohol every day, 21.6% every week, 24.3% rarely and 25.7% only at family gatherings (Figure 2).

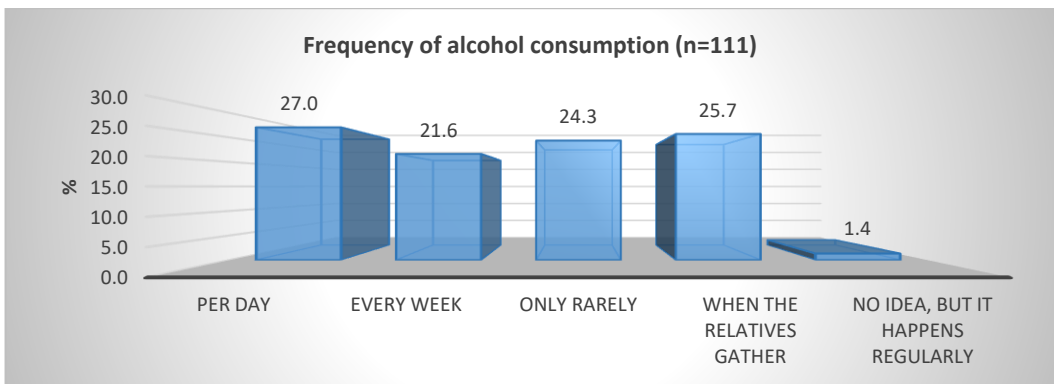


Figure 2. Frequency of alcohol consumption among examined students

There is no significant gender difference in terms of alcohol consumption, but the girls drink more ( $r=0.24$ )(Figure 3).

Pálinka, beer and whiskey are most often consumed, but several people also mentioned vodka.

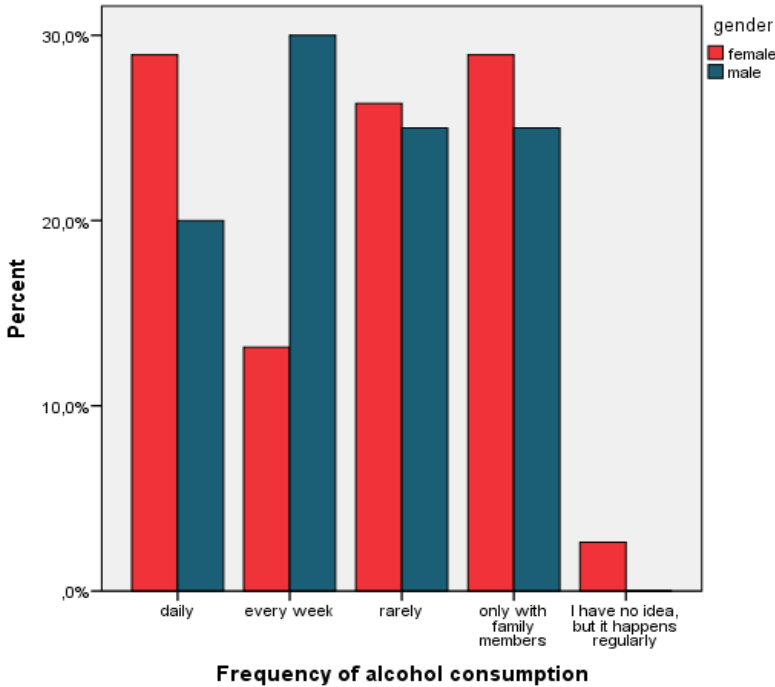


Figure 3. Frequency of alcohol consumption in relation to gender in the study population  
In 23% of the answers students wrote, that their family members also consume alcohol on a regular basis.

Most of the students don't do any sports in their freetime (Figure 4.).

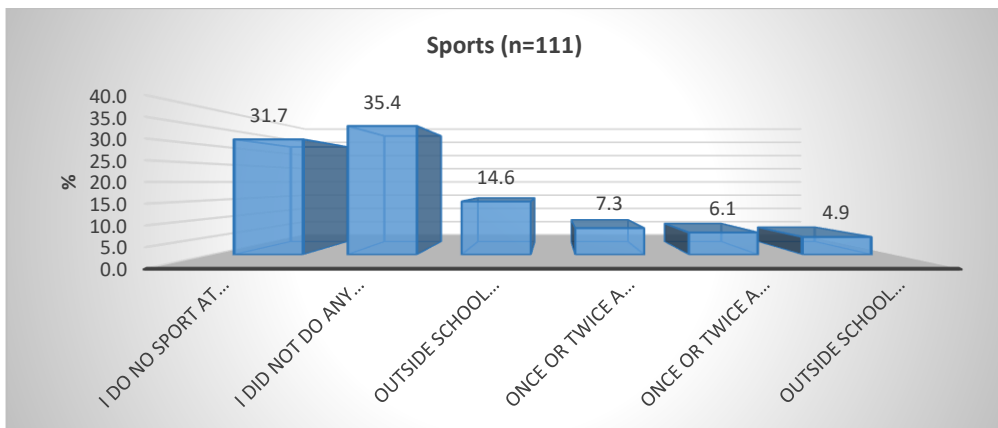


Figure 4. Free time activities, sports among examined students

Most of the students don't do any sports in their free time. 31,7 % of them don't do sports, because they are exempt from physical education. The others only occasionally do exercises as an out-of-school activity. Boys are more active than girls. There is a weak correlation between the students' and their parents' sporting habits ( $r=0.25$ .) The students mostly play football (4.9%), ride a bike (2.7%) or go dancing (1.9%).

44.3% of the students smoke. The Fagerström Test for Nicotine Dependence can be used to evaluate the the nicotine addiction level related to smoking. This tool is scored from 0 to 10. When evaluating the results, 0-2 points show very low level of addiction, 3-4 points show low level of addiction, 5 points show medium level of addiction, 6-7 points show high level of addiction and 8-10 point show very high level of addiction. In our sample the participating smokers average score is  $6.3 \pm 2.8$ , so the students showed high level of addiction. 11.1% of smokers showed very low level of addiction, 9.3% showed low level of addiction, 13% showed medium level of addiction, 27.8% showed high level of addiction while 38.9% showed very high level of addiction.

### **Self-evaluation:**

A maximum of 40 points can be achieved on the Rosenberg self-evaluation scale. The average score of the students participating in the data collection is  $24.9 \pm 7.97$ . That means that the students' self-esteem is lower and the standard deviation is high. Lower self-esteem is not in connection with dental status ( $r=0.044$ ), and their bad teeth are not something to be ashamed of ( $r=0.018$ ). The girls' self-evaluation is lower than boys' ( $r=0.25$ ,  $p < 0.05$ ).

A maximum of 100 points can be achieved on the Shame Experience Scale. The average of that in the sample is  $52.7 \pm 17.6$ . This rate is also low. Examining the subscales, the average score for characterological shame is 25.1, the average score for behavioral shame is 20.7, and the average score for body shame is 8.7. All values of the shame scale minimally exceed the threshold criteria. In case of girls, body shame is significantly higher, than that of boys ( $r=0.27$ ;  $p < 0.046$ ), but that is not related to poor oral hygiene. The shame scale shows a moderate correlation with alcohol consumption ( $r=0.3$ ;  $p < 0.014$ ). In relation to alcohol consumption, bodyshame is the most prominent ( $r=0.31$ ;  $p < 0.012$ ).

This is followed by characterological shame, and there is a weak correlation in the behavioral dimension ( $r=0.21$ ).

### *Dental health status, DMFT values*

So far, 69 students have participated in the dental screening, but the screening process has not yet been completed. The DMFT average of the remaining teeth is  $7,2 \pm 5,7$  (mean  $\pm$  standard deviation). The minimum index is 0, the maximum is 29. In the case of many students, it can be said, that the most of his teeth are decayed. ( Figure 5.) The students have an average of  $4.8 \pm 4.3$  decayed teeth. We found a student with 20 caries. On average  $1.3 \pm 1.7$  teeth were missing (M value), and only  $0.43 \pm 0.9$  teeth were filled (F value).

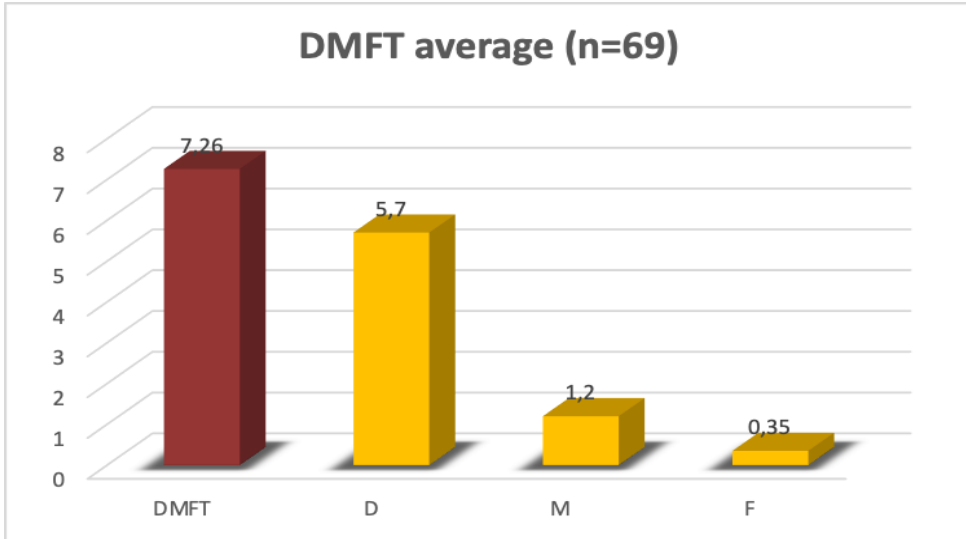


Figure 5. Dental status (Decayed 'D', Missing 'M', Filled 'F' average) in the examined population

There is no correlation between the DMFT index and gender ( $r = 0,007$ ), but boys' teeth are somewhat in worse condition than girls' ones. (Table 1.) The percentage of caries-free young people is 0.03% in our study.

DMFT n=69

Gender	average	SD
girl	8,1290	6,56629
boy	8,2222	5,52593

Table 1. DMFT value in relation to gender in the study population

The majority of the students are aware of their own dental status ( $r=0,313$ ,  $p<0,014$ ), as young people with bad teeth admit the fact, that they have bad teeth.

There is a no correlation between the frequency of alcohol consumption and DMFT values( $r=0.1$ ). But, young people who drink alcohol more often, have worse teeth.

91.6% of students have seen their parents brushing their teeth, but 8.4% of them have never seen their parents performing this activity.

35% of the students were shown the correct brushing by their parents, 15.6% were educated by the nurse, and 7% by the dental staff.

According to their own opinion, 42% of them were not educated in this issue.

### **Discussion**

Based on what was described in the introduction, the studied population consists of young people coming from a cumulatively disadvantaged environment, yet they continue their education in secondary school. In our present research, we focused on their oral health status, oral hygiene habits, health behavior habits and the self-evaluation, self-esteem, and shame that may be associated with these. The analysis of the existing socio-cultural background was also an important aspect in terms of their health-related behavior.

In order to reduce inequalities it is very important to improve mental and physical health. Identifying the problems can help determine the areas that need improvement for different disadvantaged groups. Special attention should be paid to a healthy lifestyle, prevention-related awareness and coping with stress.

Based on the results, we can conclude that most of the students studying here live in large families (where there are 3 or more siblings), with low-educated parents (65.8%), and a large percentage (50.5%) have more than five people living in one household. Nearly 11% of households with at least three or more children do not have running water, and it is also typical for these large families to have no bathroom (19%). In these families 28% of the parents do not work.

Educational institutions in disadvantaged regions try to organize screenings and programs in order to preserve and improve the health of young people, but the parental role is decisive in the health behavior of students (Kopkáné et al, 2020).

The best example of this is alcohol consumption: 27% of students consume alcohol daily, and 23% at family gatherings. 25.7% of family members regularly consume alcohol, while nearly 23% do not do any sports. There is a weak correlation between the students' sports activities and their parents' sports activities ( $r=0.25$ ), the students who do not exercise have parents who do not exercise either. The picture is made even worse by the fact that a large percentage of them do not do any sports because they are exempted from physical education at school.

A large percentage also consumes energy drinks on a daily basis, and in terms of smoking, in a population with an average age of 16 there is a high proportion of smokers who would not be able to give up smoking at all. The smoking rate is high among students, and their nicotine addiction is outstandingly high. According to

HBSC research data, more than 12% of Hungarian high school students smoke, 57% of them daily (HBSC, 2020).

Their condition of teeth is also worse than the Hungarian average, but they typically do not feel ashamed about it (DMFT 7.2). Alcohol consumption however is associated with shame. Smoking and alcohol are known to act as stress relievers in a population that does not have adequate strategies to cope with the difficulties of everyday life.

All these harmful health behavior habits are of particular importance in cumulatively disadvantaged groups, since we know that among them there is a higher percentage of diseases that are common in Hungary, such as cardiovascular diseases, pulmonary diseases (asthma, lung tumors), oral cavity tumors, dental problems. Cancers are among the second most common causes of death in developed countries, and their prevention is also of great importance in the oral cavity (Furka, 2022).

66.7% of the Roma population over the age of 19 already have some kind of chronic illness (Cserti, Orsós, 2013). The importance of health education and health promotion can easily be seen if we add to all of this the fact that their habits of going to the dentist are characterized by the desire to quickly eliminate pain, but not by participating in any kind of preventive activities.

## **Conclusion**

Based on our results, we can say that there is an urgent need for specially trained specialists, special pedagogues, and psychopedagogues who can significantly improve the oral hygiene attitude and mental health of these cumulatively disadvantaged young people with primary prevention tools and specific educational methods. Community health development programs that strengthen social support and, in the case of schools located in disadvantaged regions, the use of qualified professionals to reduce the problem play an important role in achieving the goals. We consider it particularly important to emphasize this in a population that, despite all efforts so far, is racing down the slope of social segregation.

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## **The founding elements of Enlightenment philosophy: the relationship between language, knowledge and society**

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### **Abstract**

This paper aims to examine the most important aspects of Enlightenment philosophy (and its main authors: Locke, Condillac, Diderot, Beccaria, Montesquieu) with special reference to the following topics: 1. The analysis of cognitive faculties and denial of the existence of innate ideas; 2. The criticisms of the concept of absolute authority; 3. The sovereignty and freedom of the individual; 4. Cartesian dualism between soul and body, between thought and matter. 5. The rejection of anthropocentrism led to criticism of providentialism; 6. The relationship between man and animals, and the discussions about the matter of animal language. This new formulation of ideas from the century of Enlightenment is of fundamental importance, and although not all of the hoped-for objectives were achieved – for example, those concerning human rights - their ideal was widely accepted, and those who criticise the existing order today do so in the name of Enlightenment.

**Keywords:** Philosophy of enlightenment, Political Science, Materialism, Philosophy of language.

### **Introduction**

#### **Criticism of authoritarianism**

One of the themes of Enlightenment philosophy that remains particularly interesting today is the secular conception of man and his faculties, with its underlying denial of the existence of innate ideas, and rejection of the belief that there are innate principles in the human mind, present - explicitly or only potentially – from birth. Principles like, for example, the logical principle of non-contradiction (“A is not not-A”), mathematical principles (equality, proportion, etc.), or practical and moral principles like the ideas of Virtue and duty, and the ideas of Good and of God.

Among the most influential leading lights of the age of Enlightenment, John Locke dedicated the most thought to this theme in his fundamental *Essay on human*

*understanding* (1690). He emphasised, on the one hand, the fact that we learn everything from sensations alone, given that no cognition or idea springs from a principle that exists prior to experience, and on the other, how the denial of innate ideas can cast doubt on the principle of goodness, beauty and absolute perfection – a perfection rooted in something that precedes the existence of the subjects that contain it, and is thus eternal, immutable, necessary, primordial and independent of those subjects.

In Locke's view, then, man does not possess original or primary characteristics impressed into his mind from birth, because his mind, at the initial moment of his existence, is in fact a blank sheet, completely without characteristics or ideas (Locke 1690: 593). Locke observed that only successively, and very gradually, does a child begin to formulate ideas which, without presupposing anything remotely innate, are derived solely from two sources or fountains: sensation and reflection (or interior perception). There are no ideas in the mind aside from those that have been impressed there by these two sources, which constitute experience, the only thing that provides the materials of human reasoning. As all of 18<sup>th</sup>-century gnoseology - from Hume to Kant – would assert, there can be no use of the intellect outside of experience: contrary to Descartes, according to this viewpoint, reflection is a part of experience, and although not a true "sense," because it has no relationship with external objects, is something very similar. In fact, Locke defined it as "internal sense" (Locke 1690: 594).

The confutation of innatism had political significance, given its association with criticism of the concept of absolute authority. The denial of innate and incontrovertible principles was fused with the political and religious liberalism of which Locke was also a proponent<sup>1</sup>. This concept of privileging autonomous individual choices, unconditioned by the impositions of any external authority, is fundamental, and ties in with man's emancipation from dogmas and institutions considered untouchable, like religious ones, for example. The result of this emancipation is the possibility of open and free discussion; the Enlightenment stimulated the cultivation of a critical spirit, but one that must not be excessive, otherwise it would become a generalised denigration, and that must not be an end unto itself. Hence, it must always present a positive counterbalance: generalised scepticism and systematic derision only seem to make sense on a superficial level, deviating from the spirit of Enlightenment and creating an immense obstacle to its action (Todorov 2006: 48).

The tradition continued to be important in any case, but is not in itself sufficient to render a principle legitimate. Diderot, for example, defined the philosopher and the thinking man as one capable of thinking independently, without allowing

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<sup>1</sup> A theme widely discussed in critical literature, for example in Hazard (1963), Venturi (1970), Moravia (1982: 128 ss), Casini (1994: 23-35), Franzini (2009: 37-47).

himself to be conditioned by tradition, authority and prejudice. This is one of the fundamental principles of the Enlightenment - *Sapere aude!* – emphasised by both Montesquieu (1748: I, 58) and Kant<sup>1</sup>.

Independence, however, did not mean self-sufficiency: relations with society and interaction with others are fundamental to man; he could not live without them, and human qualities and language itself ensue from them. Without relationships with others, we would be unable to have a perception of ourselves and our existence. This was a theme of great concern to Rousseau, who wrote that our existence is collective and our truest self is not entirely within us (Rousseau 1772-76: I, 813). De Sade has been much-stigmatised from this point of view, given that he made self-sufficiency a rule to live by and considered his own pleasure the only important thing, without any need to bear in mind what others thought or felt; for him, solidarity with others was something that hindered men from being independent. Todorov considers De Sade's position contrary not only to the spirit of Enlightenment, but also to common sense (Todorov 2006: 41-42)<sup>2</sup>.

Enlightenment thinkers also maintained that in order for emancipation to be effective and concrete, there must be complete freedom to analyse, discuss and doubt. The individual must no longer be subject to precepts that are legitimised solely by the fact that tradition considers them valid; no authority, regardless of its solidity or the prestige it enjoys, is immune from criticism (Todorov 2006: 11).

This need led to the generation of two fundamental principles of Enlightenment philosophy that underlie the liberal constitutions of western countries today: the sovereignty and freedom of the individual. The former focuses on the fact that all power is derived from the people, and nothing is superior to the general will: as Rousseau clearly underscored, the origin of power is not divine, but human, so any form of power is not transmitted, but merely entrusted, and the people can always take back what they have temporarily lent to a government (Rousseau 1761: 170). The latter highlights both pluralism and the division of powers, with two important consequences: the first concerns the separation between religious and political power, based on the principle that the ultimate end point of free human action is no longer God, but men themselves. The second addresses the separation between legislative, executive and judicial powers; this is a fundamental point, because the separation of powers, from Locke onwards (Viano 1960: 223-25), has been at the core of modern constitutionalist doctrine, which guarantees that the people who carry out functions linked with each of these powers are subject to the law. The power that governs a society is obligated to govern through laws to which

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<sup>1</sup> The famous "Answering the question: What is Enlightenment?" now in Kant (1965: 141)

<sup>2</sup> Todorov's interest in the Enlightenment is demonstrated by his fundamental *Nous et les autres. La réflexion française sur la diversité humaine* (1989), *Les Morales de l'histoire* (1991), and his monographic study on *L'esprit des Lumières* del 2006.

it itself is subject. These principles led to the condemnation of absolutism espoused first by Locke, and then by the authors of the *Encyclopédie*, who intended “absolute” to mean a government that does not concern itself with obtaining consensus and does not recognise that it has obligations towards its subjects, or a government that reserves the right to follow a political line even without the approval of those it governs, and to defend interests that conflict with theirs.

In this sense, the Enlightenment is a humanism (Todorov 2006: 15)<sup>1</sup> that acknowledges the inalienability of human rights, which are universal, and it is thanks to their universality that men can be considered equals, by right: equality stems from universality. An example is the right to life and to individual safety and integrity, due to which practices like the death penalty and torture – long accepted in Europe – came to be considered inhumane.

Over the course of the 18<sup>th</sup> century, jurisprudence itself went through a fundamental phase of theoretical reconsideration and revision of its own conceptual presuppositions; the essential reference on this point is Beccaria’s treatise *Dei delitti e delle pene* (1764), in which the author advocated a secular, desacralized conception of law that broke with age-old tradition, differentiating crime from sin and establishing that the law must concern itself not with fault, but with damages wrought by individuals on society<sup>2</sup>. Polemical regarding the obscurity of law, Beccaria had argued in favour of the rule of law and the efficacy of juridical communication: he was a harsh critic of the use of Latin, which at the time was still widespread in jurisprudence, contending that laws, since they concerned the entire population, must be expressed in common language so as to be understood by all. In order to be truly useful, reason – the guiding principle of law – must be shared by the community<sup>3</sup>.

The assertion of the universality of rights also had the important consequence of drawing attention to peoples with different mentalities and customs than Europeans – not to the point of ending the prejudices with which scholars had considered other peoples, but it certainly contributed to changing their way of thinking and awakening interest and curiosity about other cultures, and keeping

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<sup>1</sup> This idea is also developed in several points by Todorov (1991); see also Todorov (2002: 238-81).

<sup>2</sup> See Venturi’s observation on this (1969: 698): “Beccaria thus ended up denying any connection between the religious conception of evil, original sin and sin in general with the science of legislation, fully deconsecrating the legal relationship and thus leaving man alone in the face of his own responsibility. Laws were his work, and their logic was completely human”.

<sup>3</sup> See Beccaria (1764: 41 ff).

them from confusing their own tradition with the natural order of the world (Beccaria 1764: 17).

### Materialism

The Enlightenment movement also comprised within it a more radical line of thought which, taking cues from the denial of innatism, came to conceive of matter as the limit or boundary within which lie not only all of our knowledge, but our impulses and pleasures as well. Consequently, our desires and our sensations, including the more spiritual ones, never extend beyond the material, and even the most spiritual and imaginary and indeterminate happiness we might taste or desire is never, and can never be, anything other than material, and thus depends on the state of the body. Thought is tied to sensation (knowing is feeling); it is an attribute of matter, and with this, we have clearly transcended Cartesian dualism between soul and body, between thought and matter. Matter is active; it is not mere extension. Thought is not a spiritual or immaterial entity separate from the body, but is an integral part of it, because in man, matter itself is sentient and rational: the brain, not the soul (Timpanaro 1969: 160). For example, Holbach maintained that when we know something, we feel our body at the same time, and it is this body that feels, thinks, judges, suffers and rejoices, so all of its faculties prove necessary to its particular mechanism and organisation (Holbach 1770: I, 120).

For Diderot as well, the existence of the soul as an autonomous and heterogeneous substance, separate from the body, was unsubstantiated; thus in his writing he never spoke of union or harmony between body and soul like other “philosophe” (e.g. Buffon, Condillac, Helvétius) but of substantial identity (Moravia 1974: 158-60). Thus the soul cannot be considered a simple (i.e., immaterial and lacking extension), single and indivisible substance. The presumed immortality of the soul and the consequent belief in an afterlife is excluded without hesitation. Holbach also maintained that when a man dies, all of him dies, and that “l’esprit ou la substance inétendue et immatérielle, n’est qu’une absence d’idées” (Holbach 1770: I, 200)<sup>1</sup>. The most radical and original positions in 18<sup>th</sup>-century materialist philosophy were thus far removed from those that conceive of man first and foremost as an active, creative force, capable of overcoming his own finiteness, identifying in himself a Spinozian nature.

The most important exponents of French materialism were aware of the fact that man, as a natural and sensitive creature, cannot consider himself the purpose of all creation; hence the rejection of any anthropocentric bias and the derision of men’s pretence of being created in the image of God with a different, more

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<sup>1</sup> Still fundamental in this regard, Timpanaro (1985).



important destiny and role than other living beings. Likewise, the pretence of considering the earth to be the centre of the universe was also rejected.

The rejection of anthropocentrism led to criticism of providentialism, according to which man imagines himself favoured by God, and thus believes that the universe was created for him, and that his life and personal vicissitudes are at the heart of all of nature. The intention of Enlightenment thinkers – in particular Louis-François Jauffret, who in 1799 in Paris founded the *Société des Observateurs de l'homme*, which Cabanis and Tracy also joined – was, rather, to study human behaviour from the moral, physical and intellectual points of view, with reference to testable facts as opposed to abstract, spiritualistic theories. Todorov had great appreciation for the fact that the research carried out by these *philosophes* was based on the idea that the key to interpreting human behaviour and passions was habituation or conformability: nature provides man with a limited number of faculties which are developed through confrontation with various elements, like weather, so the weather/character relationship was one way to target investigation of the interaction between man and the environment, stripping principles of transcendence from man as much as possible (Gensini 1984: 36 n. 24);

The social and political organisation, the natural environment, etc., also constitute habits, lifestyles, customs, and varied and diverse languages. Habituation, then, is also an important element in the conformation and development of man's cognitive and linguistic faculties, which in turn depend considerably on circumstances and education.

The question of the human/animal relationship

The rejection of anthropocentrism also engendered interest in the relationship between man and animals, and in the problem of whether animals have souls, long debated in 18<sup>th</sup>-century philosophy<sup>1</sup>, and also tied to discussions about the matter of animal language. This was a particularly important question if we consider the theoretical context in which 17<sup>th</sup>-century rationalism had initially raised it – a context of deep-rooted scholarly identification between rationality and the immortal soul, and in which Descartes, in his 1637 *Discours de la methode*, had asserted the clear separation between animals and man, denying any form of language and creativity in the former. Descartes used the denial of animal language to counter the Gassendian scepticism and materialism that undermined the idea of man's primacy in the natural kingdom and contested his position at the centre of the universe. Against this conception, which had also been espoused by Montaigne, Descartes countered with a radical anthropomorphism, considering human communication as a privileged, unique and exclusive activity, and language

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<sup>1</sup> For an examination of this theme, see Prato (2012: 23-38).

the dividing line, the insuperable boundary between humans and all other living beings. Clearly separating the soul from the body, Descartes asserted that the latter - and by extension beasts, which do not have souls - is purely mechanical, and machines, without some outside influence, are inert. In the context of this view, the human body is activated by the soul, which is also the seat of language, considered exclusive to man since animals lack the spiritual principle of the soul.

The Cartesian position was contested by Enlightenment philosophical and scientific thinkers with the aim of demonstrating that even beasts possess a form of language that allows them to communicate with animals of their own species, as well as other species. And the debate began with Locke's *Essay on human understanding* in the part (the third book) dedicated to language. Locke acknowledged that human language is made up of general signs constructed through a process of abstraction. Abstraction, to Locke, mean separating an element from its context; whiteness never appears on its own, but is presented as the simple idea of a perceptible quality found, for example, in the milk we drank the day before. When we eliminate everything that ties that idea to that particular situation, it becomes representative of all other similar qualities that can be found in the most disparate elements that one can see or experience (Locke, E II/XI, 9).

The existence of general terms allows language to be understood by all those who utilise it, regardless of different individual mentalities; this is the condition of intersubjectivity, and thus of language itself. Generality or universality does not pertain to the real essence of things, but to the activity of the intellect; and here we can grasp the difference between Locke's concept of abstraction and that of the scholastic philosophy with which it is polemically contrasted, precisely because Locke did not believe that human intellect could grasp the real essence of things. By creating abstract ideas and marking them with names, people "enable themselves to think and talk in bundles, as it were" (E III/III, 20), and this facilitates the organisation and communication of representations. General ideas formed in this way are the nominal essence of things, the only essence that we can know. The real essences of things - which we must certainly presume exist in that the perceptible quality on the basis of which we distinguish and catalogue things springs from them -, are unknown to us. If there are constant and indissoluble causal connections that bind together the substantial structure of reality, the English philosopher maintained that they can only be determined by God's intellect, and not by man, and in any case - and this is the most important thing -, they have no part in the mechanism of signification. As Hume also affirmed, concepts are relations of ideas, and not actual substance.

The abstracting function of the mind is the criteria that differentiates man from animals, because the other mental faculties (memory, discernment, judgment) are, in Locke's opinion, common to all sentient beings, which possess them in different forms and degrees (Locke E II/X, 10). Only the faculty of abstraction is man's alone,

not all of the faculties of the soul. So there are no grounds of principle to exclude the possibility that animal species have some form of sense, albeit different from and more limited than the nominal essences conceived by the human mind (E II/XI, 11).

This led Locke to attribute some form of language to animals, certainly much less developed than human language, but commensurate with their needs and awareness.

Locke's considerations contributed to fueling the debate on the language of animals, which in the 18<sup>th</sup> century became an opportunity for considered reflection on the relationship between man and animals. Ascribing animals with their own, admittedly far less-evolved form of language thus meant liberating reason from its theological burden and inserting man into a natural continuum in which beings differ in terms of level, as opposed to essence. This entails posing the question of the relationship between body and soul in new terms once again, evaluating the possibility that matter has more than a merely passive function in the formation and development of knowledge (Locke E IV/III, 6).

In the course of the 18<sup>th</sup> century, thanks in part to prospects opened up by Locke's system, there was an increasing tendency to consider animal language as a fully autonomous communications system with its own rules, in many ways analogous to the human language system. This was due in particular to two different but interrelated factors. The first was the change in perspective concerning man's place in the universe, whereby man was no longer considered to be nature's ultimate purpose, the most perfect of all living beings, created in God's image. The second factor, mentioned above, was the different conception of sensation asserted by the *philosophes*, starting with Locke's criticism of innate ideas, i.e., that sensation was not simply an opportunity for knowledge, but its very foundation, confuting the traditional distinction between inferior and superior forms of humanity. Reason was no longer considered an incommensurable faculty compared to sensibility, as it moulds the mind to achieve its most complex manifestations of knowledge and thought. Reason thus began to be considered a more complex form of sensibility, and no longer a specifically human attribute.

In the *Histoire des animaux* (1749), Buffon individuated two meanings for the term "feeling": a movement corresponding to a shock or a resistance, and the faculty to perceive and compare perceptions. In the *Animal* entry written for the first volume of the *Encyclopédie* published in 1751, Diderot added a third meaning related to the sentiments of pleasure and pain and self-awareness (Diderot 1751: 101). In fact, Diderot plainly acknowledged the substantial continuity between man and animals based on the "sensibility" that pertains to the entire sphere of living beings, of which man is simply a particular case; and La Mettrie, in *Homme machine* (1751), attributed animals, to a certain degree, with both a form of reason and the

faculty of imagination, effectively corroborating the thesis of man's savage, natural origin so detested by spiritualist philosophers and the Church.

Cartesian philosophy had established a scission between these different forms of sensibility: the stimulus response mechanism was considered totally different from perceiving and feeling emotions, and in fact was associated with the *res extensa*, while the other two forms of knowledge were linked to the *res cogitans*. The outcome of this distinction was the concept of the *bête machine*, capable of sensation but incapable of feeling and comparing emotions. In 18<sup>th</sup>-century philosophy, on the other hand, these three meanings of "feeling" were brought back together, leading to the complete revision, if not the total abandonment, of the *bête machine* concept. Even Buffon, who in many respects continued to utilise the Cartesian theoretical model, demonstrated in various parts of his work that he considered Cartesian animal automatism outmoded, and even came to suggest that animals were conscious of their own existence, considerably reducing the distance that separated them from man.

In his *Traité des animaux* (1755), Condillac emphasised sensation as a matter of awareness that lay in the spiritual sphere as well as the physical, and then outlined a picture of the development of animal faculties deriving from sensation in an analogous way to the development of human faculties, but asserting that animals' abilities cannot reach human levels because animals have limited needs and a differently formed phonic apparatus. In the human mind, the passage from the simultaneity of thought to the seriality of speech develops through an analytical process in which we can observe what we do when we think. This led Condillac to consider languages as analytical methods. Language is thus not structured solely for the purpose of communication, but is also a crucial tool for analysing thought and breaking it down into discrete segments (Simone 1992: 155). Condillac's interest in signs stemmed from the form of empiricism itself: mental activity can occur only if it has a perceptible material support. As long as one is standing before a rose, or a dog, thought consists of the sensation derived from the subject's relationship with this element of the real world; this is a process that man has in common with animals. But when the object of thought is the number 2, or a dog in general, there is nothing in the real world that can elicit that particular sensation. It is arbitrary language that designates ideas that are not given in nature, which is very different from the natural language of animals. In this case, language is necessary for thought, because otherwise there would be no way to dominate the diversity of phenomena, and because certain objects of thought do not correspond to sensations, i.e., ideas. The key to activating the faculties of the soul, from memory to imagination, is the "liaison des idées".

This new formulation of ideas from the century of Enlightenment (concerning materialism, human rights, political science and linguistics) is of fundamental importance, and although not all of the hoped-for objectives were achieved – for

example, those concerning human rights - , their ideal was widely accepted, and those who criticise the existing order today do so in the name of Enlightenment.

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## **Between rurality and urbanity: Indicators of social integration of Albanian rural to urban migrants**

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### **Abstract**

Integration of rural to urban migrants represents a complex experience of learning and adapting to a community with a new and different culture. Despite the changes in the way of living and the modifications of cultural values due to social interaction and coexistence with urban subculture, most of migrants moved from village to the city retain a sense of rurality. Internal migration in Albania often takes place in form of chain migration. Therefore, the concentration of migrants to the peripheral part of the city, rural social networks, kinship interaction, financial and social support impact their social and cultural integration to urban subculture. This paper aims to highlight indicators of social integration of Albanian migrants moved from village to the city. Data for this paper was obtained through a quantitative survey method. 400 surveys were conducted with Albanian migrants moved from villages to Korça city which remains the second most important destination, besides Tirana, for migrants from rural areas of the southeastern part of Albania. Descriptive and correlative statistical analysis was used for data interpretation. Rurality is not only a territorial unit, but derives from socially created meanings. The study showed that sense of rurality impacts the patterns and strategies of integration of rural to urban migrants to the city.

**Keywords:** chain migration, integration, social network, rurality, role of tradition

### **Introduction**

Albanian rural to urban migration is characterized by massive population of urban areas and depopulation of rural areas. For the first time in history of Albanian Census the number of people living in the city overcome the number of people living in the village. 53.7% of Albanian people live in urban areas while 46.3% live in rural areas (Albanian Population and Housing Census 2011). These demographic and social developments are closely related to modernity.

Among the main push factors which impact the decision to migrate from village to the city remain economic conditions, low income, unemployment, low access to public services, etc. While the pull factors are related to better opportunities to employment and education, the living standard in urban areas etc. Albanian rural to urban migration has affected a lot the urban community mainly in terms of high urban concentration of the population, rapid and wild urbanization, risk of `ruralisation` of urban areas, concentration of internal migrants to the peripheral part of the city, mainly to informal areas, related to the "flocking effect" of migration. People moved from village to the city face the challenges of integration to the host society. They carry on values, norms, ideas, features of rural subculture which differs from the urban subculture making even more difficult their social and cultural integration to the city life.

Migration of people from villages to Korça city and their patterns of social and cultural integration to the host society is the focus of this study. The aim is to highlight the dichotomy rurality-urbanity which characterizes rural to urban migrants.

Korça city remains the second most important destination (besides Tirana) for rural to urban migrants from the southeastern part of the country (Vullnetari J, 2012). Korça is the most important regional pole of the southeast, located along one of the most important trade routes connecting Albania with the Balkans and European countries, through Macedonia and Greece. Korça region has experienced internal and international migration as well. A large number of people have moved from villages to Korça city. Based on statistical data it is estimated that in 2005 the number of people living in Korça city was 85.590 people. In 2005 the number of people moved from villages to Korça city was 2.456 while the number of people who left the city was 1.163. In 2008 the number of people moved to Korça city was estimated 716 people (from which 524 women and 192 men), while the ones left (mainly to Tirana and Greece) were 614 people from which 178 women and 436 men (Statistical Bulletin of Korça 2008). In 2009 the total number of people living in Korça city was 86.596, the number of arrivals was 925 while the number of people who left the city was 572.

Based on statistical indicators from INSTAT regarding the change of residence at district, city or village level, it is estimated that during 2001-2011 the total number of Albanian people who have moved from village to the city was 280,863 individuals. The number of people who have moved to Korca district for the same period (2001-2011) was 6.989 with a prevalence of rural to urban movements (INSTAT 2014). Internal migration during 2001- 2011 is characterized by the displacement of the whole family unit which remains a typical feature of Albanian rural to urban migration.

Migration of people from rural to urban areas brings social and cultural changes to both sending and host communities. This brings into the focus the issue of integration of migrants to the urban subculture.



## Albanian rural – to urban migration

Rural to urban migration in context of Albania predominantly affects the whole family. People leave village and move to the city as a whole unit family. Cultural values, norms and traditions of people moved from village to the city face to the ones of urban people and affect the way they integrate to the host society. In Albania context family and family ties are important factors which determine the decision to migrate and the choice of destination as well (Vullnetari 2007). These connections based on family and kin ties which affect the migration patterns creates what is called 'chain migration'. Internal migration in Albanian society often takes place in the form of chain migration. Therefore, social networks based on family and kin ties, financial and social support remain of great importance on integration of rural to urban migrants to the city life. Chain migration leads to the creation of separated social and cultural groups in urban areas. As the number of people that move from village to the city increases, they create their own communities within urban areas, with their own values and lifestyles, that differ from the ones of urban subculture.

Studies on Albanian rural to urban migration show that family and kin ties determine not only the decision to migrate and where to migrate but the housing choice to the country of destination as well. New migrants tend to settle in houses and apartments that are close to the ones of migrants who have moved to the city earlier. This trend of migrants' grouping on the basis of family and kin ties provides to the new migrants who come from village to the city a feeling of continuity of rural lifestyle even while they are living in the city. It is worth mentioning that in a sociological viewpoint terms 'urban culture' and 'rural culture' are considered as relative and conditional mental constructs. The terms 'urban culture' and 'rural culture' refer to a system of values and the lifestyle that characterizes the individuals who live in urban areas and those who live in rural areas, which nowadays are not as separate categories as they used to be in the past. Moving from village to the city brings important changes to the life of internal migrants in terms of education, employment, economic and social opportunities, family relationships, etc. (Rye F, J 2011, King & Skeldon 2010, Vullnetari 2012). Migration studies point out the impact of migration on social and cultural transformation of urban areas due to migrants' efforts to integrate to the host society.

Based on the meaning of 'urban culture' as the way of living in the city and the meaning of 'rural culture' as the way of living in the countryside, it is worth highlighting some characteristics of urban lifestyle compared to rural lifestyle. The city is characterized by heterogeneity. Heterogeneity, social mobility and dynamism of urban life promote flexibility in the way of behaving which leads to more tolerant attitudes. Urban subculture is characterized by more tolerant attitudes towards changes, innovations, recent trends in general. On the other hand, the preservation of tradition and traditional forms of social organization and socially behavior is the most significant feature of rural subculture.

Urban society is mainly characterized by individualism and secondary relationships. It has a more individualized way of living, where people are generally closed within their personal interests, family, work, generally indifferent and sometimes contemptuous of those who come from the countryside (Fuga & Dervishi 2010). In contrast, in rural areas the integration of individuals into the social entity is mainly based on common goals and a common way of living. A typical feature of rural community is a social and cultural system based on family and kin ties which remain strong and decisive for the worldview and lifestyle of people living in rural areas. This is apparently reflected in attitudes, behavior, way of thinking of people living in the village.

Rurality is not only a territorial unit, but derives from socially created meanings (Mormont 1990; cited article. Rye, F. J. 2011:173). The meaning of rurality as a mental category allows us to understand its impact on people actions and attitudes, including both the decision to migrate and the strategies of integration to urban subculture, as well as patterns of social interaction with the host society.

### **Research Methodology**

This paper is part of a wider study regarding internal and international migration in Korça region and its social and cultural impact. Data for this study was provided through a quantitative survey method. 400 surveys were conducted with Albanian migrants moved from villages to Korça city.

Systematic probable sampling was used for the survey of people moved from village to the city. The survey was first piloted on 50 subjects to test the level of clarity and comprehensibility by the respondents. It was statistically tested as well, to prove the accuracy in data distribution and the relationships between the variables. Data provided through the quantitative method (survey) was statistically processed in SPSS program, version 20. For data analysis and interpretation descriptive statistics were used; Pearson's chi-square test to test the relationship between variables; correlational analysis; crosstabulation of data, as well as comparative descriptive analysis to compare the ratio difference between two or more groups of subjects.

### **Results and Discussion**

#### **Indicators of social integration**

Integration of rural to urban migrants to urban life represents a complex experience of learning and adapting to a community with new and different subculture (Çaro E, 2011). Despite the changes in lifestyle and modifying cultural values of migrants moved from village to the city due to social integration to urban society, most of them still retain a sense of rurality.

Their tendency to be grouped and localized to the peripheral part of the city creates the possibility for them to share the traditions and norms of the village.

This complies to the assumption of Tittle and Stafford (1992) that people living in the peripheral areas of urban centers are more homogeneous, have strong social boundaries, show less anonymity and fewer aspects of urbanization. In context of our study, it is evident the concentration of rural to urban migrants to the peripheral part of Korça city (mainly section 10, 18) which are dominated by people moved from villages who keep strong family and kin ties and allow them retain a sense of rurality.

Heckmann (2005) identified four types of migrants' integration to the host society including: structural integration (employment, housing, education, access to health services, political rights, etc.); cultural integration (changes in behaviors and attitudes of migrants due to adapting to the norms of the host society); interactive integration and identifying integration (sense of belonging expressed in terms of loyalty to one's own ethnic, local, regional, national identity). Based on this model, it is emphasized that the social dimension of integration of migrants to the country of destination is related to what Heckmann calls interactive integration, which includes social interaction, friendship, intermarriages, membership in various organizations, etc (Heckmann, 2005: 13-15, cited article at King & Skeldon 2010: 1635). The social environment is an important factor that significantly affects the integration of migrants to the host society, as it is related to social interaction between people moved from village to the city and the host society. The local context in which social interactions between migrants and host society occur varies from a number of institutions (administration and public service institutions, schools, companies, hospitals, etc.), to public spaces such as squares, public transport, shops, residential complexes. It also includes the private sphere (family relationships, marriage, friendship) (Gsir, S. 2014). A number of studies show that migrants being surrounded by citizens in their social environment (neighbourhood, work, school, etc.), are more likely to integrate easily to urban life compared to those who are part of a social environment that is mainly dominated by other rural to urban migrants.

Referring to data provided from the survey it is estimated that the results of Pearson's Chi-square test to evaluate the relationship between variable 'social environment in neighbourhood' and variable 'the degree of integration in urban life' showed that there is a statistically significant relationship between the variables:

$$\chi^2 (30, N = 400) = 73.22, p = .000 < .05. \quad (1)$$

Also, the results of Pearson's Chi-square test to evaluate the relationship between variables "social environment at work or school" and "integration in urban life" showed that the relationship is statistically significant:

$$\chi^2 (24, N = 400) = 37.74, p = .037 < .05. \quad (2)$$

These results support the findings of other studies regarding the impact of social interaction on integration of rural to urban migrants to urban life. The workplace/school can be defined as a mixed site (public and private) in terms of everyday contacts and interactions (Amin 2002). On one hand, the workplace/school constitutes a space where dialogue, communication or interactions are mandatory, but on the other hand, it offers opportunities for strengthening social interactions and relations. Being surrounded mainly by townsmen in their workplace or school migrants moved from village to the city appear better integrated in urban life due to frequent social interaction between them.

There are two important factors which affect the degree of social and cultural integration of migrants to the host society; duration of stay in the city and age. Results of Chi-square test showed that there is a statistically significant influence between 'duration of stay in the city' and 'degree of integration in urban life':

$$\chi^2 (308, N = 400) = 373.25, p = .006 < .05 \quad (3)$$

This means that the longer migrants stay in the city, the better integrated they are. On the other hand, results of correlation test between variables 'age' and 'integration to urban life' show that there is a negative association between the two variables. This means that the older migrants who move from village to the city the less integrated to urban life they are. The value of the correlation coefficient shows that the relationship between variables is weak, but statistically significant:

$$r (400) = -.232, p = .00 < .01 \quad (4)$$

This is explained by the fact that integration of people coming from the village to the city is a complex and dynamic process that depends on a number of other factors that co-influence. Social integration leads to greater cultural integration of migrants. The cultural integration of migrants to the host society is related to behavioural changes, changes in attitudes, practices, values, and lifestyle in general. Based on these components of the cultural system, the degree of cultural integration of people moved from village to Korça city has been identified based on the definition of Algan et al (2012) for cultural integration as the measure in which migrants share the same values or behavioural patterns with the rest of the host society. Cultural integration of rural to urban migrants regarding the change in lifestyle, attitudes, behaviour, cultural values is a complex process that occurs over time and in a spatial context. The spatial context is related to the impact of urban social environment and density of social interaction with urban society on the extent of changing lifestyle.

To point out the relationship between urban social environment and social interaction with urban society with the extent of change in lifestyle, Pearson's chi-square test was used.

The variable 'change in lifestyle' was measured through these sub-variables: 'change in mentality', 'change in way of speaking', 'changes in traditions, rituals' and 'changes in family relationship'. The results of the test showed that there is a statistically significant relationship between variables: 'social interaction with urban society' and 'change in lifestyle' of people moved from the village to the city:

$$\chi^2 (120, N = 400) = 164.59, p = .004 < .05 \quad (5)$$

The results of the test also showed a statistically significant relationship between the variable: 'friendship with townsmen' and variable 'change in lifestyle' of people moved from village to Korça city:

$$\chi^2 (60, N = 400) = 102.66, p = .001 < .05 \quad (6)$$

### 3.2. Links to rural social environment

A number of studies have focused on the impact of migration (internal and external) on the development and emancipation of sending communities, through financial and social remittances (De Haas 2006, 2007; Vullnetari & King, 2003, 2009; Levitt 1998). There are few studies which find that links to country of origin affect not only the transmission of practices, behavior patterns, ideas, and values (acquired during the migratory experience) to the country of origin, but also slow down or hinder the integration of migrants to the host society. Albanian rural to urban migration generally occurs as a family project (INSTAT 2004, Vullnetari 2012). People leave the village and move to the city as a whole family. However, in many cases, young people move to urban space leaving behind their parents and family members (wives and children). Even when migration takes place as a family project, migrants moved to the city leave their relatives or friends in the countryside, maintaining frequent contacts and ties with them.

The continuity of links to rural social environment, through contacts, calls, mutual visits and the density of these connections is an important variable that affects the degree of migrants' integration to the urban subculture. However, it is worth mentioning that links to rural social environment depend on the geographical proximity to Korça city as well as whether those who came from village to the city have left relatives/family members in the village or not.

To point out the impact of links to rural social environment to the integration of migrants moved from village to urban subculture or the extent of maintaining features of rurality while living in the city, we refer to statistical indicators provided from the survey.

The variable 'links to the rural social environment' is a variable created from grouping several other sub-variables (calls to relatives/friends left in the village, mutual visits to relatives/friends in the village).

To measure the level of reliability (internal consistency of scales of the survey), or the extent to which all the statements of a test measure the same concept Cronbach's alpha was calculated (Alpha = .758). This value shows a high internal consistence of test scales. While the variable "rural way of living" was measured through these sub-variables (preserving traditions, rural mentality, way of speaking) (Alpha = 0.582). Results of Chi-square test showed that there is a statistically significant relationship between the continuity of links to rural social environment and maintaining features of the rural lifestyle:

$$\chi^2 (70, N = 400) = 119.95, p = .00 < .05 \quad (7)$$

This indicator supports the assumption that 'continuity of links to rural social environment' impacts preserving the rural way of living.

To test the strength and direction of relationship between the two variables Spearman's Correlation Coefficient was used. Results of Spearman's Correlation showed that there is a positive and weak relationship between the two variables, but statistically significant:

$$r (400) = .268, p = .000 \quad (8)$$

This means that the more frequent and intense links to rural social environment, the greater the tendency to preserve the rural way of living.

### 3.3. Contacts to the village and the role of tradition

A series of studies on migration and integration of migrants point out that the role of tradition remains stronger even when living in the city among migrants who continue to keep in touch with relatives and friends to the village compared to those who don't (Petkovic 2007, Ozdemir 2003, Vullnetari 2012,

Nikaj 2012). People moving from village to the city are characterized by a strong connection to tradition compared to people living in the city. This is what Petkovic (2007) describes as acceptance of tradition and traditional forms in all parts of social organization and daily behavior of people living in the village. Due to strong ties with family and kin, respect for tradition constitutes a characteristic feature of rural subculture.

This is more evident when it comes to generational expectations.

Living in large family units and sharing a strong sense of community allow people living in the village to share certain values related to obligation to take care of family members and relatives, the sense of responsibility towards them, especially for the elderly, mainly sons to parents.

These attitudes are an expression of patriarchal tendencies of Albanian society, which are more evident in rural areas and remain more stable against changes. Even while living in the city (which is characterized by individualism, autonomy and close family interest) elderly migrants moved from village to urban areas still show the same expectations towards new generation.

Related to this the study showed that there is a positive association between links to rural social environment and preservation of tradition among migrants moved from village to Korça city. Spearman's Correlation Coefficient was used to test the strength and direction of the relationship between the two variables: 'links to rural social environment' and 'remaining the tradition'. Results of the test showed that there is a positive, weak, but statistically significant relationship between the two variables:

$$r(400) = .356, p=.000 < .01 \quad (9)$$

This means that the more frequent the connections to rural environment, the greater the tendency to preserve tradition among migrants moved from village to the city.

The study showed that elderly try to preserve and pass down to the youth certain traditions related to mutual visits between relatives, traditions related to wedding ceremonies, funerals, births, etc. The tendency to maintain these traditions among migrants moved from village to the city is related not only to links with rural social environment, but also to other factors such as migrants' experience, duration of stay in the city, the presence or absence of elderly in the family, etc.

## **Conclusions**

Considering the aim of this paper it is worth mentioning that integration of migrants to urban subculture is closely related to social interaction of them to the host society. Dimensions of social integration include social interaction, friendship, intermarriages, mutual visits etc.

Urban social environment remains a determining factor of social integration as it affects the degree of social interaction between people moved from village to the city and the host society. The study pointed out that social environment in the neighbourhood, workplace, school etc. impact social interaction and integration patterns of migrants to urban life as well.

Results from the study led to the conclusion that rural to urban migrants being surrounded by townsmen in their social environment (neighbourhood, work, school, etc.), appear to be better integrated in urban life.

Urban social environment affects not only the degree of social interaction between migrants and host society but also impacts the type of relationships created between individuals.

The study showed that migrants located in a social environment where there is a large concentration of townsmen are more likely to create close friendly ties with them compared to migrants who live in a social environment dominated by migrants moved from village to the city.

Integration of migrants to the country of destination is a complex process that occurs over time and in a spatial context. The cultural dimension of integration is related to aspects of lifestyle changes. The results of the study showed that coexistence with urban subculture has significantly influenced changes in lifestyle for the vast majority of the respondents. While living in the city migrants begin to adapt to urban lifestyle regarding changes in values, cultural norms, traditions, etc., resembling more and more the host society. An important factor in this context is social interaction to the host society. Data from the survey highlighted the impact of urban social environment on changing the lifestyle of rural to urban migrants. The study founded that in perception of people moved from village to the city changing the lifestyle means improving the material conditions that facilitate their way of living, such as: comfortable house, close distance to work/ school, better conditions at work, more free time, greater opportunities for entertainment, etc. Regarding this, the study showed that while migrants seem to be more included within urban community, they do not appear fully integrated in urban subculture and still maintain a sense of rurality. Their cultural integration is a dynamic and evolving process. The study pointed out some indicators of rurality among people who moved from village to Korça city, such as:

- Strong connection to tradition and norms of the village, mainly influenced by their social concentration in certain parts of the city and the continuity of links to rural community which make it difficult for them to create a clear urban identity
- Lack of trust towards townsmen reflected by the tendency to maintain and strengthen social networks based on family and kin ties
- Too much care and concern on the way their actions or behaviors are being perceived by the rest of the population, especially by townsmen.

Integration and social inclusion should not be considered as stable situations or given facts, but as dynamic social processes which often operate through contradictory mechanisms. On one hand there are forces and mechanisms which push migrants towards inclusion, on the other hand there are personal strategies, informal social networks that facilitate their integration to the host society. Duration of stay in the country of destination remains of particular importance in this sense. The longer migrants live in the city the stronger and more complete is their integration to urban society. The study also showed that young people moved from village to the city are more willing to adapt and integrate to the host society, while the elderly are more willing to isolate within the migrants' community.



Regarding the above findings and conclusions reached it is worth mentioning that a whole understanding of migrants' integration to urban society lays the need for further research regarding personal sources and individual characteristics of migrants as well as migrants' social network. Integration to the host society is not only a function of material and social resources, or duration of stay, but also a matter of individual characteristics: readiness, feelings, mutual perceptions, etc. The way people perceive each other affects the extent to which they interact. These perceptions become a source of labeling and prejudicing which directly affect the degree of social interaction between migrants and host society. Another important variable which must be taken into consideration in this context is related to the social networks of migrants. Social networks facilitate the process of adaptation and integration of migrants to the host society. It is recommended to study the impact of migrants' social network on their integration to the country of destination as well as identifying whether they are 'urban' social network or rural kin- based social network. Next, furthering the research on internal migration will demand better understanding of gender dimensions of migration process. Migration patterns and integration of women migrants to urban society should be another priority area for future research.

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## **The impact of standardization of livestock products on the economy of farmers and the local economy**

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### **Abstract**

There is a strong link between agriculture and the economy. Smallholder farmers are the foundation of the livestock sector and an essential element in building and developing the local dairy value chain, critical to the development of its local economy. Economic growth is necessary for poverty reduction. The main objective of the study is to know the impact of livestock production on the regional economy of Gjirokastra. The result of the study identifies employment generation and income generation as the major benefit of standardized livestock production. The study hereby recommends that the government should take standardized livestock production as one of the major factors contributing to the economy and also put some policies in place in order to encourage farmers to collaborate in this regard. In Gjirokastra, and despite the efforts made since the transition from the communist regime until now, farmers still face many problems that prevent them from participating effectively in the development of the milk value chain. This research study refers to the views of small farmers in the Gjirokastra region about the milk production sector and the problems faced by these farmers. This study also investigates the effect of several factors (ethical factors, tradition, animal welfare, cultural factors, etc.) on the milk value chain. Convergence model was used in mixed method triangular design as a methodology for this research study. As part of the social data, 34 farmers who produce and sell milk and cheese in the Gjirokastra District were interviewed. The results showed the influence of ethical, cultural and traditional factors on the development of the value chain.

The results also showed the problems and difficulties faced by small farmers in rural areas, on the one hand, and the gap between these farmers and government and private organizations on the other.

**Keywords:** standardization, dairy products; value chain; small farmers; Food safety; Gjirokastra District

## Introduction

This study was financed by the National Agency for Scientific Research and Innovation within the project "Standardization of Livestock Products in Gjirokaštër District".

Livestock systems occupy about 30 percent of the planet's ice-free terrestrial surface area and are a significant global asset with a value of at least \$1.4 trillion. (Steinfeld et al. 2006) The livestock sector is increasingly organized in long market chains that employ at least 1.3 billion people globally and directly support the livelihoods of 600 million poor smallholder farmers in the developing world (Thornton et al. 2006).

Livestock are important in supporting the livelihoods of poor farmers, consumers, traders and laborers throughout the developing world. The greatest impact of livestock in sustainable development designed to help the poor is an enhancement of livestock-production systems. Animal diseases are crucial constraints in this: the animals of poor people are particularly vulnerable to disease because of the expense, absence or unsuitability of animal-health and production inputs. (FAO 2010). Livestock production is an important part of the national economy and an integral component of state and local economies. The production of livestock, as well as other commodities, causes ripple effects throughout the economy in the form of employment; production in allied industries; taxes paid to local, state and federal governments; indirect impacts from purchases of input supplies; and induced impacts from household spending throughout the state.

In Albania, about half of the farmers are engaged in animal husbandry, including the dairy sector. Dairy products occupy an important part in the consumption basket of Albanian families. Milk production is mainly dominated by cow's milk, with a contribution higher than 4/5 of the milk produced.

In general, dairy products are destined for the domestic market, so the increase in production is mainly driven by the increase in domestic demand, while the balance of international trade in dairy products shows a structural deficit <sup>1</sup>. The dairy sector is considered a priority sector based on the potential for import substitution.

Many processing factories have problems with liquidity related to the process of cheese production technology. For this reason, there is a need for short-term loans in this value chain. Also, milk processors as leaders in the milk value chain can be considered for financing under the value chain approach.

Studies show that about 75% of farms in the world are family farms. According to official data <sup>2</sup>, the number of farmers registered and equipped with NIPT in Albania during 2022 is 62,922, approximately 35% of the total of 181,549, of which 14,206 were registered only during 2021. Despite different development policies and modernization that each country adopts to advance the field of agriculture in all its sectors, small farmers face numerous challenges at the local and international level.

Smallholders are the backbone of the economy in countries that depend heavily on agriculture and livestock. The dairy sector is one of the most important agricultural sectors for smallholder farmers, as it plays a fundamental role in their daily income and self-sufficiency, as well as food security. If farmers are forced to change their behavior due to international hygiene standards, without appropriate government solutions to support them, social problems will arise and economic issues will arise for society. These potential events could lead to farm abandonment by farmers. The resulting consequences can be drastic and have a long-term impact. These consequences can cause substantial changes in the natural landscape of the district due to the lack of livestock.

In Gjirokastra and in most developing countries, milk production depends on small farmers. It also contributes to ensuring family livelihoods, supporting food and nutrition sovereignty and maintaining food security. Therefore, small farmers in these countries, and especially in Gjirokastër, are considered as one of the most important actors in the development of the agricultural sector.

Milk production is an integral part of the small farm economy in Albania and many other countries. It is what gives them self-sufficiency in terms of food and some cash. For example, small milk producers in countries such as Greece and Macedonia are represented by a large part of the economic policies adopted in the development of the dairy sector. Many small farmers in these countries have managed to increase their production and compete in larger markets.

The increase in milk production in developing countries globally results from an increase in the number of animals kept and not from an increase in productivity per head. Low food quality, animal care and disease prevention, demand for access to markets and use of all available services on their part lead to the underdevelopment of the milk value chain.

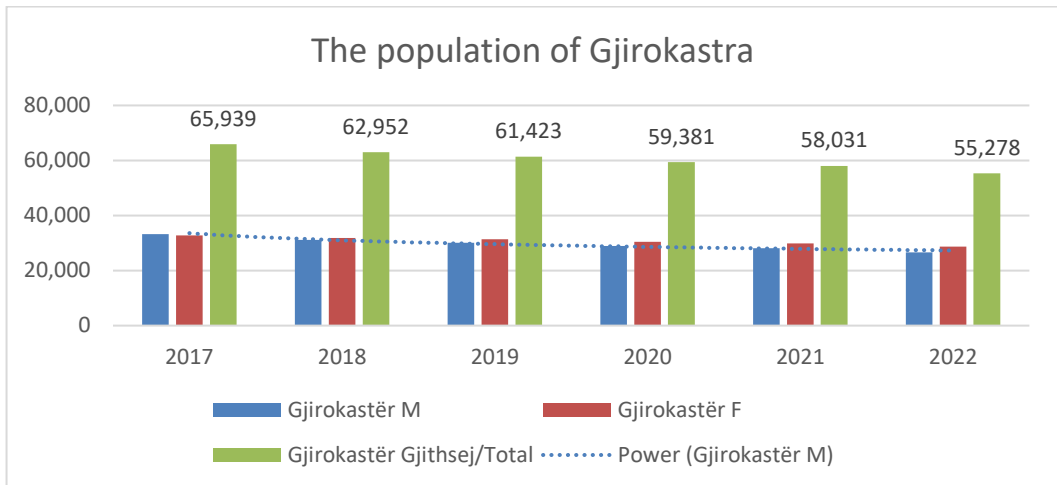
## **Factors Affecting Livestock Production in Gjirokašter District**

### **Socio-demographic and socio-economic factors**

Socio-demographic factors such as gender, family and age, socio-economic statuses such as income, education, employment and residential area are essential vital factors that directly affect farmers and the existing agricultural economic system.

According to INSTAT's official publications, the District of Gjirokastra has the lowest percentage of the population, with about 2.0% of the total population. The population of Gjirokastra District has been decreasing in recent years, reaching the lowest figure of 55,278 inhabitants in 2022 .

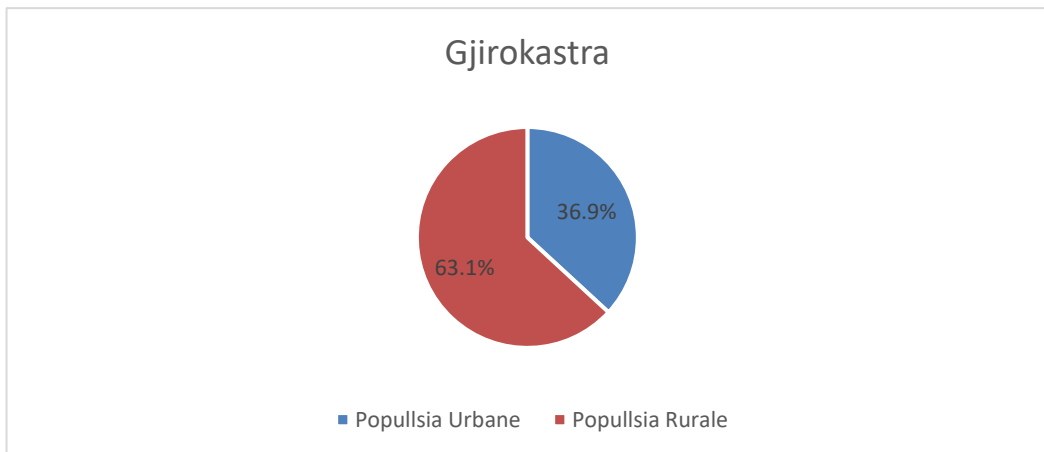
Figure 1: Population of Gjirokastra 2017-2022



Source: Graphic presentation made by the author, based on INSTAT data

The division of the population according to the Urban and Rural classification was last developed in 2014, and according to this division, the rural population in Gjirokaštër occupied 36.9% of the total population. picture 2 shows change IN population between areas Urbana AND rural IN Gjirokastra. During the last years, the rural population, at the national level, has decreased by about 7%, which means that, on average, the current rural population in Gjirokaštër District is approximately 30%, that is, about 16,580 inhabitants.

Figure 2: Urban/rural population classification



Source: INSTAT, 2014

While Gjirokastra has undergone massive changes over the past few years, many constructive initiatives and programs have emerged that help develop the village and support small farmers.

Budget 2022 represents the largest fund for direct support and investment for farmers. According to official data, for 2022, the budget for farmers is 3.2 billion ALL or 26 million euros.

For 2021, the budget was worth about 22 million euros, while the budget in 2022 is 4 million euros more than a year ago. But, compared to the countries of the region, Albanian farmers have the lowest support from the government. Over the years, it has been considered the largest fund, but in comparison to itself, because compared to the Region and the Balkans, these figures are the lowest.

Meanwhile, Kosovo's direct support for farmers has been around 50 million euros, and there is also a big difference with Montenegro, Kosovo, Macedonia and Serbia.

Recent developments in the global economic crisis have also had their impact on Albanian farmers. According to the Income and Standard of Living Survey (IAS) 2021, which measures the standard of living, relative poverty and material deprivation in Albanian families, it results that the Indicator of the risk of being poor in Albania in 2021 is 22.0 %, marking a slight increase of 0.2 percentage points, compared to 2020.

Farmers' access to rural areas and market control is complicated, especially in relation to climate change. Small farmers face new risks, but they do not have enough knowledge about adaptive measures and cannot cope with them. This development presents a new threat that could threaten rural areas

All these factors subject Gjirokastra's milk production to significant challenges: the decline of the population in rural areas, the increase in poverty and the loss of dynamism and entrepreneurship in those areas with an increase in emigration of young people and a small number of retirees. , who depend for their livelihood on remittances as well as social transfers.

### **Ethical Factors**

The consumption of the Albanian population relies heavily on animal products, in particular, on animal products milk. The demand for these products has always been high, as they constitute an important part of the average consumption basket of Albanian families.

Livestock production raises a wide range of ethical issues. One of the most important issues is concern for animal welfare.

Consumer awareness of food quality and safety has increased dramatically, as the ethical factor of animal products has played an important role in consumer behavior. On the other hand, dairy producers, retailers and the food industry are demanding higher animal welfare standards to obtain excellent quality, which supports the economy on the one hand and maintains food safety and food safety standards on the other. .

Animal welfare is a complex subject that varies from culture to culture. It is a subject that has scientific, cultural, social, ethical, religious and political dimensions.

The production of safe food for humans depends on the health and productivity of these animals.

For example, state legislation intended to support animal welfare in the opinion of farmers is not entirely fair from a political point of view. Increasing such laws creates a sense of insecurity among farmers and undermines confidence in the political decision.

Regarding traditions, studies have shown that rural farmers have a shared understanding of the cultural, political, economic, and social context of what it means to be a good farmer. Therefore, modern financial plans and legislation aimed at developing the dairy sector and increasing interest in animal welfare are considered by many farmers as a threat because it conflicts with their deep-rooted culture and traditions.

In addition, the experience of these farmers is also an important factor, especially in the ethical issue. Political decisions, which aim to increase the awareness and knowledge of farmers, play a major role in creating a communication bridge between them and the responsible parties. As a result of all the circumstances and events affecting the county's population, small farmers faced and still face many problems in the milk production sector. Lack of fodder and limited pastures available for grazing cows are among the most critical problems facing farmers. The lack of adequate housing for animals or places prepared for them in terms of health in rural areas increases the risks that animals suffer. The farmer's use of antibiotics in animal feed is due to the lack of health care caused by the lack of veterinarians. Human consumption of these dairy products and its by-products can generate disease and resistance that can be transmitted to farmers and threaten their safety and health.

In an effort by small farmers to take care of animals and to try to increase the quality of dairy products, families with many cows are trying to provide enough food from grass in summer and wheat, corn and straw in winter, despite the high prices of these materials, and to keep pace with animal welfare regulations. In the region under consideration, most farmers own a small number of cows with low productivity. Thus, providing the necessary food can be a problem for them compared to those with large farms.



## Methodology

### Study Area

The research study was conducted in Gjirokastrër District, which is one of the 12 districts in Albania and has an area of 2,884 km<sup>2</sup>. Until 2000, the District of Gjirokastra was divided into three districts: Gjirokastra, Përmet and Tepelën. Since the 2015 local government reform, the district consists of the following 7 municipalities: Dropull, Gjirokastrër, Këlcyre, Libohovo, Memaliaj, Përmet and Tepelenë <sup>3</sup>. The District Municipalities consist of about 270 municipalities and villages in total.

Figure 3: Map of the study area



From the research in this district, 34 milk processors were identified and studied, about 47% of whom operate in the Gjirokastrër District, and 26% in the Përmet and Tepelën districts

<sup>3</sup>"Law no. 115/2014" (PDF. pg. 6371. Retrieved on November 25, 2022.

Table 1: Milk processors by District

District	Milk Processors
Gjirokastra	16
Permet	9
Tepelena	9
in total	34

Source : Author, result of the study

Mostly, farmers are concentrated in the administrative units Antigone, Carshove, Cepo, Dhemblan, Dropull i Siperem, Kelcyre, Qender Municipality, Kurvelesh, Kurvelesh, Lazarat, Lekel, Libohove, Lopes , Odrie, Picar, Suke e Zagori.

### **Methodology- Mixed Method**

This study relied on the convergence model in the tripartite design of the mixed method approach. Using a mixed method design allows questionnaires or surveys and interviews to be conducted together. Mixed method is a methodology that attempts to break down the qualitative-quantitative divide by integrating aspects of both approaches. However, both methods are not mutually exclusive, but can be used together to create combined results.

We used the experimental design of qualitative and quantitative surveys and interviews as primary data. Data and information about the dairy sector in Gjirokastër County were adopted as supporting data.. This publication aims to present a quantitative survey of farmers in Gjirokastër County and discuss the factors provided by expert opinions.

### **Survey and data collection**

All the data used in this study were collected through a survey distributed to all farmers who were included in the study. These data were collected from 34 women working in 18 administrative units: Antigone, Carshove, Cepo, Dhemblan, Dropull i Siperem, Kelcyre, Qender Municipality, Kurvelesh, Kurvelesh, Lazarat, Lekel, Libohove, Lopes, Odrie, Picar, Suke of Zagori. In this selection are included all the farmers who have been identified and who exercise the activity within the geographical area of the study. The farmers have completed the distributed survey, and personal interviews have also been conducted during the visits that have been made to their work environments. The questions were arranged in a logical manner and related to each other, depending on the purpose of this research. All interviews were face-to-face and all these questionnaires were completed during the interviews.

Some of the factors that were taken into consideration in this study are: location, gender, socio-economic sphere of the family, family size, milk supply, range of products, annual profits, accumulated experience, points of sale and marketing of products.

The survey included 34 small farmers, of which 34 were men. The data collected through the survey was transferred and stored in English.

After the survey was completed, all survey data were transferred to an Excel spreadsheet. The number of interviewed farmers was 30, so the size of this sample allows the generalization of the results to all small farmers in Gjirokaštër.

### **Data Analysis**

The results of the survey were transferred to an excel sheet as coded data, to show the descriptive statistical results for each section of the variables.

SPSS software version 27.0 (IBM, USA) was used for all statistical analyses, where the general comparison between survey factors was calculated using Spearman correlations (rs). An independent samples t test tested whether the means of two independent samples were different. ArcGIS Pro was used to map the study area.

### **Results and Discussion**

The results showed that the percentage of male farmers who participated in the survey was higher than the percentage of women (100%).

The demographic characteristics of the questionnaire show how Girokastrri society has been influenced by ancient culture and traditions. Women in rural areas still do not have enough freedom or access to the market and follow all developments in agriculture, especially the cheese production sector. As the results of the questionnaire show, women are mainly responsible for livestock on the farm or at home. They are the ones who milk the cows and prepare the milk for sale or for home use to make cheese or other products. Some of the women we interviewed reveal this situation as:

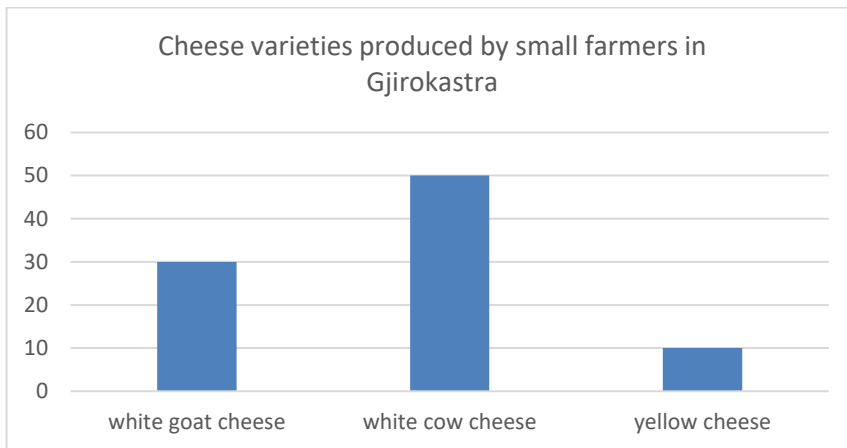
"We are the ones who do all the work at home. The men mainly deal with the trade and the distribution network, while we collect the milk and prepare it for sale or to make cheese. This is the hard work that makes selling milk and cheese possible."

Other women stated that: "My mother and grandmother have done this work in the past; they milked the cows and made cheese and prepared it for sale or consumption at home. And here we are doing the same job, nothing has changed."

Most of all, regional culture and traditions play an important role in rural society and directly affect livestock breeding and marketing.

The results show that 47.9% of the interviewed small farmers use a part of milk to make only two types of cheese, white goat cheese and white cow cheese, but with different qualities, as these are the most sought after types of cheese.

Figure 4: Cheese varieties produced in the interviewed farms (N = 34, Mean = 27, Std. Dev. = 31,112).



Source: Questionnaire results

It is essential to consider the cultural and social background of smallholder farmers. With few reservations, women in rural areas are still the ones who make the cheese at home and milk the cows.

Hygiene standards in the production process and food safety measures are mostly strictly enforced. The produced cheese is sold in the premises where it is produced or at their points of sale, in small markets or supermarkets, and therefore it is difficult to monitor it continuously.

Based on all this, the social and cultural identity of small farmers is an important and essential factor in the development of the value chain for cheese production and the support of the rural community, which helps to grow the local economy.

According to the report of the United Nations Organization, the roles of men and women in agriculture and animal husbandry are justified on the basis of various factors, among which the main ones are the differences in physical strength between them and gender stereotypes.

Women's and men's roles are defined by the activities available, as men believe that all jobs and activities that require physical strength are their responsibility.

This patriarchal system is still widespread in the Gjirokastra region, especially in rural areas, as the traditions of this society place women as responsible people.

Thus, a proper understanding of the role of women in the dairy chain helps in developing and strengthening the dairy value chain. Rural women are the cornerstone of this activity, starting from the milking stage to the preparation or production of cheese for sale.

Therefore, these Albanian laws and legislation should pay more attention to the roles of rural women and provide them with all the necessary support to include them in the development phase of the local economy

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## The New Integral Transform: "NE Transform" and Its Applications

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### Abstract

This work introduces a new integral transform for functions of exponential order called "NE integral transform". We prove some properties of NE - transform. Also, some applications of the NE- transform to find the solution to ordinary linear equation are given. The relationships of the new transform with well-known transforms are characterized by integral identities. We study the properties of this transform. Then we compare it with few exiting integral transforms in the Laplace family such as Laplace, Sumudu, Elzaki , Aboodh and etc. As well, the NE integral transform is applied and used to find the solution of linear ordinary differential equations.

**Keywords:** NE integral transform, Laplas transform, Natural transform , Aboodh transform , Ordinary diferencial equation .

### Introduction

For many decades, the integral transforms play a precious role in solving many differential and integral equations. Using an appropriate integral transform helps to reduce differential and integral operators, from a considered domain into multiplication operators in another domain. Solving the deduced problem in the new domain, and then applying the inverse transform serve to invert the manipulated solution back to the required solution of the problem in its original domain (see, [1–13]). The classical integral transforms used in solving differential equations, integral equations, and in analysis and the theory of functions are the Laplace transform, the Fourier integral transform . Besides, in the mathematical literature, there are many Laplace-type integral transforms such as the Laplace-Carson transform which is used in the railway engineering [14], the z-transform can be applied in signal processing [15], the Sumudu transform is used in engineering and many real-life problems [10, 16, 17], the Hankel's and Weierstrass transform has been applied in heat and 1 diffusion equations [18, 19]. In addition, we have the natural transform [20–22] and Yang transform [13, 23] used in many fields of physical science and engineering.



## The New Integral Transform

### *Definition of the transform*

This work introduces a new integral transform as a generalization and unification to Laplace and other existing transforms for functions of exponential order . We begin with following: Now let A be the set of single transformable functions that is :

$$A = \left\{ f(t) | \exists M, k_1, k_2 > 0, |f(t)| \leq M \exp\left(\frac{|t|}{k_i}\right) \text{ if } t \in (-1)^i x [0, \infty[ \right\}$$

The real function  $f(t) > 0$  and  $f(t) = 0$  for  $t < 0$  is sectionwise continuous, exponential order and defined in the set A. The Natural transform of the function  $f(t) > 0$  and  $f(t) = 0$  for  $t < 0$  is defined by :

$$N\{f(t)\} = R(s, u) = \int_0^{+\infty} e^{-st} f(ut) dt \quad , s > 0, u > 0$$

Where s and u are the transform variables. An other integral transform is the Aboodh transform [19] that is derived from equation :

For the same conditions as above is derived equation :

$$A(s) = N\{f(t)\} = \frac{1}{s} \int_0^{+\infty} e^{-st} f(t) dt$$

### *Definition 2.1*

A function  $f(t)$  is said to be of exponential order  $\frac{1}{k}$ , if there exist positive constants T and M such that,  $|f(t)| \leq M e^{\frac{t}{k}}$  , for all  $t \geq T$  . For any function  $f(t)$ , we assume that a integral equation exist.

The New integral transform is the combination of above integral transform .

For a given function in the set A, the constant M must be positiv number. A new integral transform denoted by the operator E(.) is defined by the integral equation:

$$E(s, u) = N\{f(t)\} = \frac{1}{su} \int_0^{+\infty} e^{-\frac{st}{u}} f(t) dt \quad (1.1) \text{ or}$$

$$E(s, u) = N\{f(t)\} = \frac{1}{s} \int_0^{+\infty} e^{-st} f(ut) dt$$

. (1.1)

**Theorem 1.1.** [Sufficient conditions for existence of a new integral transform]

If  $f(t)$  is piecewise continuous on  $[0, \infty)$  and of exponential order  $\frac{1}{k}$ , then  $E[f(t)]$  exists for  $|\frac{u}{s}| < k$  .

Proof. We need to show that the integral

$$E(s, u) = N\{f(t)\} = \frac{1}{su} \int_0^{+\infty} e^{-\frac{st}{u}} f(t) dt$$

converges for  $|\frac{u}{s}| < k$ . We begin by breaking up this integral into two separate integrals:

$$\frac{1}{su} \left[ \int_0^T e^{-\frac{st}{u}} f(t) dt + \int_T^{+\infty} e^{-\frac{st}{u}} f(t) dt \right] \quad (3)$$

where T is chosen so that definition ( 1.1) holds. The first integral in (3) exists because f (t) and hence  $e^{-\frac{st}{u}}$  are piecewise continuous on the interval [0, T ) for any fixed s. To see that the second integral in (3) converges, we use the comparison test for improper integrals. Since f (t) is of exponential order  $\frac{1}{k}$ , we have for  $t \geq T$ ,  $| f (t) | \leq Me^{\frac{t}{k}}$  and hence:

$$\left| e^{-\frac{st}{u}} f(t) \right| = e^{-\frac{st}{u}} |f(t)| \leq Me^{-t(\frac{s}{u} - \frac{1}{k})}$$

for all  $t \geq T$ .

Now for  $|\frac{u}{s}| < k$ ,

$$\int_T^{+\infty} Me^{-t(\frac{s}{u} - \frac{1}{k})} dt = M \int_T^{+\infty} e^{-t(\frac{s}{u} - \frac{1}{k})} dt = \frac{Me^{-T(\frac{s}{u} - \frac{1}{k})}}{\frac{s}{u} - \frac{1}{k}} < \infty$$

Since ,

$$\left| e^{-\frac{st}{u}} f(t) \right| \leq Me^{-t(\frac{s}{u} - \frac{1}{k})}$$

for  $t \geq T$  and the improper integral of the larger function converges for  $|\frac{u}{s}| < k$ , then by the comparison test, the integral  $\int_T^{+\infty} e^{-t(\frac{s}{u} - \frac{1}{k})} dt$

converges for  $|\frac{u}{s}| < k$ . Finally, because the two integrals in (3) exists, a new integral transform  $N[f (t)]$  exists for  $|\frac{u}{s}| < k$ .

### Definition 2.2

For the function  $E(s,u)$  ,if exist a function  $f(t)$  that is piecewise continuous on  $[0, +\infty[$  , and  $N(f(t))=E(s,u)$  , than  $f(t)$  is called the invers integral transform of  $E(s,u)$  :

$$f(t) = N^{-1}(s) = N^{-1}(E\{s, u\}) = \frac{1}{2\pi i} \int_{c-\infty}^{c+\infty} e^{st} E(us) u^2 ds \text{ or}$$

$$f(t) = N^{-1}(s) = N^{-1}(E\{s, u\}) = \frac{1}{2\pi i} \int_{c-\infty}^{c+\infty} e^{\frac{st}{u}} E(s) ds$$

New integral transform of some functions :

$$N\{1\} = \frac{1}{s^2}$$

$$N\{t\} = \frac{u}{s^3}$$

$$N\{e^{at}\} = \frac{1}{s(s-au)}$$

$$N\{\sin(at)\} = \frac{au}{s(s^2+a^2u^2)}$$

$$N\{\cos(at)\} = \frac{1}{(s^2+a^2u^2)}$$

**Theorem 1.2.** [Duality relation] Let  $f(t) \in F$  with Laplace transform  $F(s)$ . Then a new integral transform  $E(s,u)$  of  $f(t)$  is given by:

$$E(s, u) = \frac{1}{us} F\left(\frac{s}{u}\right)$$

Proof: Let  $f(t) \in F$ , then for  $-k_1 < v < k_2$ ,

$$E(s, u) = \frac{1}{s^2} \int_0^{\infty} e^{-t\frac{u}{s}} f\left(\frac{u}{s}t\right) dt$$

Let  $v = \frac{u}{s}t$ , then we have:

$$E(s, u) = \frac{1}{s^2} \int_0^{\infty} e^{-\frac{sv}{u}} f(v) \frac{s}{u} dv = \frac{1}{us} \int_0^{\infty} e^{-\frac{sv}{u}} f(v) dv = \frac{1}{us} F\left(\frac{s}{u}\right).$$

**Theorem 1.3.** [Fundamental properties of a new integral transform] Let  $E(s,u)$  be a new integral transform of  $f(t)$ . Then:

$$N\{f'(t)\} = \frac{sE(s,u)}{u} - \frac{f(0)}{su}$$

$$N\{f''(t)\} = \frac{s^2E(s,u)}{u^2} - \frac{f(0)}{u^2} - \frac{f'(0)}{su}$$

$$N\{f^n(t)\} = \frac{s^n E(s,u)}{u^n} - \frac{s^{n-2}}{u^n} f(0) - \frac{s^{n-3}}{u^{n-1}} f'(0) \dots - \frac{f^{n-1}(0)}{su} \quad (3)$$

$$N\{t^n\} = \frac{u^n}{s^{n+2}} \Gamma(n+1), \quad \Gamma(n+1) = (n+1)! \quad (\text{Gamma function})$$

**Proof.**

**1)** For  $n = 1$  and  $2$  in eqn (4) gives the New transform of first and second derivatives of  $f(t)$  respectively. To proceed the induction process, assuming eqn (3) true for  $n$  and prove it for  $n+1$ , using eqn (1),

$$\begin{aligned} N[f^{n+1}(t)] &= N[f^n(t)]' = E_{n+1}(s, u) = \frac{sE_n(s, u)}{u} - \frac{f_n(0)}{us} \\ &= \frac{s}{u} \left[ \frac{s^n}{u^n} E(s, u) - \sum_{k=0}^{n-1} \frac{s^{n-(k+2)}}{u^{n-k}} f^k(0) \right] - \frac{f(0)}{us} \\ &= \frac{s^{n+1}}{u^{n+1}} E(s, u) - \sum_{k=0}^n \frac{s^{n-(k+1)}}{u^{n-k+1}} f^k(0) \end{aligned}$$

which is true for  $n+1$  and when  $n = 0$  and  $1$  in previous relation, gives eqns (1) and (2) respectively. Hence the result (3) follows.

**4)**

$$N[t^n] = \frac{1}{s} \int_0^\infty e^{-st} (ut)^n dt = \frac{u^n}{s} \int_0^\infty e^{-st} t^n dt = \frac{u^n}{s} \int_0^\infty e^{-v} \frac{v^n}{s^n} \frac{dv}{s} = \frac{u^n \Gamma(n+1)}{s^{n+1}}$$

Here  $st$  is replaced with  $v$  so that  $t = \frac{v}{s}$  and hence ultimately the limit changed and Gamma integral is given by  $\Gamma(n) = \int_0^\infty e^{-v} v^{n-1} dv$ .

### New Integral Transform of Integrals Equations

Consider the integration of function  $f(t)$  in set  $A$ , w.r.t  $t'$  in the interval  $(0, t)$  as  $w(t)$  and successive integrals as  $w^2(t)$  upto  $w^n(t)$  which is :

$$w(t) = \int_0^t f(t) dt, \quad w^2(t) = \int_0^t \int_0^t f(t) (dt)^2, \quad \dots, \quad w^n(t) = \int_0^t \dots \int_0^t f(t) (dt)^n \quad (1.1)$$

**Theorem 1.3.** New transform of integrals. If  $w^n(t)$  is given by (1.1) the New transform of  $w^n(t)$  is :

$$N[w^n(t)] = \frac{u^n}{s^n} E(s, u)$$

**Proof.** From the New integral transform definition eqn (1.1)

$$N[w^n(t)] = \frac{1}{su} \int_0^{+\infty} e^{-\frac{st}{u}} w^n(t) dt = \frac{1}{su} \int_0^{+\infty} e^{-\frac{st}{u}} \left[ \int_0^t \dots \int_0^t f(t) (dt)^n \right] dt$$

Applying the integration by parts

$$u = \int_0^t \dots \int_0^t f(t)(dt)^n, \quad u^n = f(t)dt, \\ dv = e^{-\frac{st}{u}} dt, \quad v = -\frac{u}{s} e^{-\frac{st}{u}}, \quad v_n = (-1)^n \left(\frac{u}{s}\right)^n e^{-\frac{st}{u}} \\ = \left[ (-1)^n \left(\frac{u}{s}\right)^n e^{-\frac{st}{u}} w^n(t) \right]_0^\infty + \frac{1}{su} \int_0^\infty \left(\frac{u}{s}\right)^n e^{-\frac{st}{u}} f(t) dt$$

The first part of the previous equation vanishes and the succeeding integral gives

$$\frac{1}{su} \int_0^\infty \left(\frac{u}{s}\right)^n e^{-\frac{st}{u}} f(t) dt = \left(\frac{u}{s}\right)^n E(s, u) = N[w^n(t)]$$

which ends the proof.

### Multiple Shift And Convolution Theorem

When the function  $f(t)$  in set  $A$  is multiplied with some shift  $t$  then,

$$tf(t) = \sum_{n=0}^\infty a_n t^{n+1}$$

The New integral transform of  $tf(t)$  gives :

$$N[tf(t)] = \sum_{n=0}^\infty \frac{(n+1)! a_n u^{n+1}}{s^{n+3}} \\ = \frac{u}{s} \sum_{n=0}^\infty \frac{(n+1)! a_n u^n}{s^{n+2}} = \frac{u}{s} \sum_{n=0}^\infty \frac{d}{du} \frac{(n+1)! a_n u^{n+1}}{s^{n+2}} \\ = \frac{u}{s} \frac{d}{du} u \sum_{n=0}^\infty \frac{(n+1)! a_n u^n}{s^{n+2}} = \frac{u}{s} \frac{d}{du} u E(s, u).$$

The generalization of previous result is :

**Theorem 1.4.** The function  $f(t)$  in set  $A$  is multiplied with shift function  $t^n$  then,

$$N[t^n f(t)] = \frac{u^n}{s^n} \frac{d^n}{du^n} u^n E(s, u)$$

**Proof :** The New transform of Maclaurin series function  $f(t) = \sum_{n=0}^\infty a_n t^n \in A$  is defined by the infinite series,

$$N[f(t)] = \sum_{n=0}^\infty \frac{n! a_n u^n}{s^{n+2}}$$

So that we have

$$\begin{aligned}
 N[t^n f(t)] &= \sum_0^{\infty} \frac{(2n)! a_n u^{2n}}{s^{2n+2}} = \frac{u^n}{s^n} \sum_0^{\infty} \frac{(2n)! a_n u^n}{s^{n+2}} = \frac{u^n}{s^n} \sum_0^{\infty} \frac{d^n}{du^n} \frac{n! a_n u^{2n}}{s^{n+2}} \\
 &= \frac{u^n}{s^n} \frac{d^n}{du^n} u^n \sum_0^{\infty} \frac{n! a_n u^n}{s^{n+2}} = \frac{u^n}{s^n} \frac{d^n}{du^n} u^n E(s, u)
 \end{aligned}$$

**Theorem 1.5.** If  $f^n(t)$  is nth derivative of function  $f(t)$  w.r.t 't', is multiplied with shift function  $t^n$  then,

$$N[t^n f^n(t)] = u^n \frac{d^n}{du^n} E(s, u)$$

**Proof.** Differentiating defining integral equation  $\frac{1}{s^2} \int_0^{\infty} e^{-t} f\left(\frac{ut}{s}\right) dt$ , we have :

$$\begin{aligned}
 \frac{d^n}{du^n} E(s, u) &= \frac{d^n}{du^n} \int_0^{\infty} \frac{1}{s^2} e^{-t} f\left(\frac{ut}{s}\right) dt = \int_0^{\infty} \frac{1}{s^2} e^{-t} \frac{\partial^n}{\partial u^n} f\left(\frac{ut}{s}\right) dt = \int_0^{\infty} \frac{1}{s^2} e^{-t} \left(\frac{t}{s}\right)^n f^n\left(\frac{ut}{s}\right) dt \\
 &= \frac{1}{u^n} \int_0^{\infty} \frac{e^{-t}}{s} \left(\frac{ut}{s}\right)^n f^n\left(\frac{ut}{s}\right) dt = \frac{1}{u^n} N[t^n f^n(t)]
 \end{aligned}$$

multiplying both sides by  $u^n$  ends the proof.

**Theorem 1.6. Convolution theorem.**

If  $F(s,u)$  and  $G(s,u)$  are the New transforms of respective functions  $f(t)$  and  $g(t)$  both defined in set A then,

$$N[(f * g)] = u s F(s, u) G(s, u) \quad (2.2)$$

where  $f * g$  is convolution of two functions defined by

$$[(f * g)] = \int_0^t f(a)g(t - a)dt$$

**Proof.** Expanding the R.H.S of eqn (2.2)

$$\frac{us}{s} \int_0^{\infty} e^{-sx} f(ux) dx \frac{1}{s} \int_0^{\infty} e^{-sy} g(uy) dy = \frac{u}{s} \int_0^{\infty} e^{-s(x+y)} \int_0^{\infty} f(ux)g(uy) dx dy$$

substituting  $t = x+y$

$$= \frac{1}{s} \int_0^{\infty} e^{-st} \int_0^{\infty} f(ux)g(u(t-x)) u dx dy$$

setting  $a = ux$  and  $da = u dx$  with  $ux$  in  $[0,ut]$  and  $x$  is in  $[0,t]$  thus

$$= \frac{1}{s} \int_0^{\infty} e^{-st} \int_0^t f(ux)g(u(t-x))d(ux)dt = \frac{1}{s} \int_0^{\infty} e^{-st} \int_0^{ut} f(a)g(ut-a)dadt = N[f * g]$$

### The New Decomposition Method

In this section, we illustrate the applicability of the New Decomposition Method to some nonlinear ordinary differential equations.

Consider the general nonlinear ordinary differential equation of the form:

$$Lv + R(v) + F(v) = g(t), \quad (4.1)$$

$$\text{subject to the initial condition } v(0) = h(t), \quad (4.2)$$

where L is an operator of the highest derivative, R is the remainder of the differential operator, g(t) is the nonhomogeneous term and F(v) is the nonlinear term. Suppose L is a differential operator of the first order, then by taking the New Transform of Eq. (4.1), we have:

$$\frac{sE(s,u)}{u} - \frac{V(0)}{us} + N[R(v)] + N[F(v)] = N[g(t)] \quad (4.3)$$

By substituting Eq. (4.2) into Eq. (4.3), we obtain:

$$E(s, u) = \frac{h(t)}{s^2} + \frac{u}{s} N[g(t)] - \frac{u}{s} N[R(v)] - \frac{u}{s} N[F(v)] \quad (4.4)$$

Taking the inverse of the New Transform of Eq. (4.4), we have:

$$v(t) = G(t) - N^{-1} \left[ \frac{u}{s} N[R(v) + F(v)] \right] \quad (4.5)$$

where G(t) is the source term.

We now assume an infinite series solution of the unknown function v(t) of the form:

$$v(t) = \sum_{n=0}^{\infty} v_n(t) \quad (4.6)$$

Then by using Eq. (4.6), we can re-write Eq. (4.5) in the form:

$$\sum_{n=0}^{\infty} v_n(t) = G(t) - N^{-1} \left[ \frac{u}{s} N \left[ R \sum_{n=0}^{\infty} v_n(t) + \sum_{n=0}^{\infty} A_n(t) \right] \right] \quad (4.7)$$

where A<sub>n</sub>(t) is an Adomian polynomial which represent the nonlinear term. Comparing both sides of Eq. (4.7), we can easily build the recursive relation as follows:

$$v_0(t) = G(t)$$

$$v_1(t) = -N^{-1} \left[ \frac{u}{s} N[R(v_0(t)) + A_0(v)] \right]$$

$$v_2(t) = -N^{-1} \left[ \frac{u}{s} N[R(v_1(t)) + A_1(v)] \right]$$

$$v_3(t) = -N^{-1} \left[ \frac{u}{s} N[R(v_2(t)) + A_2(v)] \right]$$

Eventually, we have the general recursive relation as follows:

$$v_{n+1}(t) = -N^{-1} \left[ \frac{u}{s} N[R(v_n(t)) + A_n(v)] \right] \quad n \geq 0 \quad (4.8)$$

Hence, the exact or approximate solution is given by:

$$v(t) = \sum_{n=0}^{\infty} v_n(t) \quad (4.9)$$

### Applications to Find the Solution of Linear Ordinary Equations

#### Example 1 :

Consider the Riccati differential equation of the form :

$$\frac{dv}{dt} = 1 - t^2 + v^2(t) \quad (5.1)$$

subject to the initial condition  $v(0) = 0$ . (5.2)

Taking the New Transform to both sides of Eq. (5.1), we obtain:

$$\frac{sE(s,u)}{u} - \frac{v(0)}{us} = \frac{1}{s^2} - \frac{2u^2}{s^4} + N[v^2(t)] \quad (5.3)$$

By substituting Eq. (5.2) into Eq. (5.3), we obtain:

$$v(s, u) = \frac{u}{s^3} - \frac{2u^3}{s^5} + \frac{u}{s} N[v^2(t)] \quad (5.4)$$

Taking the inverse New Transform of Eq. (5.4), we have:

$$v(t) = t - \frac{t^3}{3} + \frac{u}{s} N[v^2(t)] \quad (5.5)$$

We now assume an infinite series solution of the unknown function  $v(t)$  of the form:

$$v(t) = \sum_{n=0}^{\infty} v_n(t) \quad (5.6)$$

Then by using Eq. (5.6), we can re-write Eq. (5.5) in the form:



$$\sum_{n=0}^{\infty} v_n(t) = t - \frac{t^3}{3} + N^{-1} \left[ \frac{u}{s} N[\sum_{n=0}^{\infty} A_n(t)] \right] \quad (5.7)$$

where  $A_n$  is the Adomian polynomial which represent the nonlinear term  $v^2(t)$ . By comparing both sides of Eq. (5.7), we can easily build the general recursive relation as follows:

$$v_0(t) = t - \frac{t^3}{3}$$

$$v_1(t) = N^{-1} \left[ \frac{u}{s} N[A_0(t)] \right]$$

$$v_2 = N^{-1} \left[ \frac{u}{s} N[A_1(t)] \right]$$

Then the general recursive relation is given by:

$$v_{n+1}(t) = N^{-1} \left[ \frac{u}{s} N[A_n(t)] \right]. \quad (5.8)$$

By using Eq. (5.8), we can easily compute the remaining components of the unknown function  $v(t)$  as follows:

$$v_1(t) = N^{-1} \left[ \frac{u}{s} N[A_0(t)] \right]$$

$$= N^{-1} \left[ \frac{u}{s} N[v_0^2(t)] \right]$$

$$= N^{-1} \left[ \frac{u}{s} N\left[\left(t - \frac{t^3}{3}\right)^2\right] \right]$$

$$= N^{-1} \left[ \frac{u}{s} N[t^2] \right] - \frac{2}{3} N^{-1} \left[ \frac{u}{s} N[t^4] \right] + \frac{1}{9} N^{-1} \left[ \frac{u}{s} N[t^6] \right]$$

$$= N^{-1} \left[ \frac{2u^3}{s^4} \right] - \frac{2}{3} N^{-1} \left[ \frac{4! u^5}{s^6} \right] + \frac{1}{9} N^{-1} \left[ \frac{6! u^7}{s^8} \right]$$

$$= \frac{t^3}{3} - \frac{2t^5}{15} + \frac{t^7}{63}$$

Then by canceling the noise term from  $v_0(t)$ , the remaining non-canceled term of  $v_0(t)$  provide us with the exact solution. This can easily be verified by substitution.

Therefore, the exact solution of the given problem is given by:

$$v(t) = t. \quad (5.9)$$

The exact solution is in closed agreement with the result obtained by (ADM).

## Example 2 :

The following examples illustrate the use of a new integral transform in solving certain initial value problems described by ordinary differential equations.

Consider the first-order ordinary differential equation:

$$y'(t) + by(t) = h(t), \quad t > 0, \quad y(0) = a \quad (1)$$

where  $a$  and  $b$  are constants and  $h(t)$  is an external input function so that its a new integral transform exists.

Using a new integral transform of equation (1) we have:

$$\frac{sE(s, u)}{u} - \frac{y(0)}{us} + bE(s, u) = H(s, u)$$

where that  $E(s,u)$  and  $H(s,u)$  are a new integral transforms of  $y(t)$  and  $h(t)$ .

By applying the initial condition we have:

$$\begin{aligned} E(s, u) \left[ \frac{s}{u} - b \right] &= H(s, u) + \frac{a}{us} \\ &= \frac{u(usH(s, u) + a)}{us(s - bu)} \\ \Rightarrow E(s, u) &= a \left[ \frac{1}{s(s - bu)} \right] + us \left[ \frac{H(s, u)}{s(s - bu)} \right] \end{aligned}$$

By the inverse of a new integral transform and convolution theorem we find that:

$$y(t) = ae^{-bt} + \int_0^t e^{-bt} h(t - \tau) d\tau \quad (2)$$

The first term of this solution in (2) is independent of time  $t$  and is usually called the steady-state solution, and the second term depends on time  $t$  and is called the transient solution. In the limit as  $t \rightarrow \infty$  the transient solution decays to zero if  $b > 0$  the steady-state solution is attained, on the other hand, when  $b < 0$ , the transient solution grows exponentially as  $t \rightarrow \infty$  and the solution becomes unstable. Equation (2) describes the Law of natural growth or decay Process with an external forcing function  $h(t)$  according as  $b > 0$  or  $b < 0$ . In particular, if  $h(t) = 0$  and  $b > 0$  the resulting equation (2) occurs very frequently in chemical kinetics. Such an equation describes the rate of chemical reactions.

## Conclusion

In the present paper, authors successfully introduced a new integral transform “NE transform” and analyzed the novel integral transform. . Authors also presented the fundamental properties (linearity; scaling; translation; convolution) of the proposed transform with its inverse transform. The definition and applications of the novel

transform to solve ordinary differential equations have been demonstrated . In future, “NE integral transform” can be considered to solve various complex problems of science, medicine and engineering by developing their mathematical models, also we will introduce the complex transform and a double” NE integral transform “.

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## **The Importance of Knowledge of Risk Factors and Clinical Evaluation for Oral Precancerous Lesions and Oral Cancer in Dentists Community of Tirana**

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### **Abstract**

Early detection is the most effective way for survival and reduced mortality in the case of oral cancer. The aim of this study was to evaluate the knowledge of dentists regarding early detection of oral cancer and precancerous lesions in many Dental Clinics in Tirana, Albania. This is a descriptive, cross-sectional study, where 200 general dentists practicing in private and University clinic in Tirana are involved in one questionnaire, between June - October 2022. This study was conducted using a simple random sampling technique with a self-reported questionnaire with open and closed questions. The dentists, aged from 25 to above 50, were well informed about the major risk factors associated with oral cancer. Around 25% of the respondent paid attention to the overall tongue as a potential site for malignancy. Looking at the dentist's knowledge about oral cancer; enlargement of cervical lymph nodes was the best-known clinical presentation of oral cancer (85.5%), followed by persistent ulcer (82.5 %). 68/200 dentists felt confident to examine and diagnose an oral precancerous/cancer lesion. Only 11.5% felt adequately trained in diagnostic techniques for early detection of oral precancerous/cancer lesion and were comfortable in performing a biopsy. Mostly the participants (89%) felt that they need further training on oral precancerous/cancer lesion early detection. Dentists must know more scientific data related to precancerous lesions to optimize early diagnosis and referral of patients. There is need for further training courses and continuing education regarding early detection and prevention of oral cancer.

**Keywords:** Oral Cancer, Oral Precancerous Lesions, Dentists.

## **Introduction**

The premalignant oral disorder is a blanket term for a variety of pathologies that can arise in the oral cavity. Early recognition and prompt management are key to optimal outcomes. However, there remains a significant knowledge gap in this area among medical practitioners (S. Papadiochou et al. 2020). According to the World Cancer report, 530.000 new oral cancer cases were diagnosed, and 290.000 deaths were registered world-wide. Two-thirds of new cases are reported from the low-, and lower-middle income countries (Stewart et al. 2014).

Oral cancers in Europe are the most common in Easter European countries from where the highest mortality rates are reported (Warnakulasuriya at al. 2009). About 80% of those suffering from oral cancer could hardly survive one year after the clinical diagnosis (American cancer society 2004). Five-year survival is reported only from clinical centers where best treatment can be provided (Johnson et al. 2011). The most described premalignant oral lesions are leukoplakia, erythroplakia, lichen planus, and submucous fibrosis (Warnakulasuriya at al. 2007), (Maymone et al. 2019), (McCormick et al. 2016), (Wetzel et al. 2020). The most described etiologies of premalignant oral lesions are cigarette smoking, tobacco, and alcohol exposure (Kusiak et al. 2020), (Grady et al. 1990). Betel nut chewing has also been associated with the development of oral leukoplakia (Thomas et al. 2008). Human papillomavirus (HPV) has emerged as a risk factor: a recent meta-analysis of 52 studies revealed a pooled HPV DNA prevalence of 22.5% in oral premalignant disorders (De la Cour et al. 2021). The authors also noted that HPV16 was the predominant genotype, which is also the most common serotype found in oropharyngeal cancer (Kreimer et al. 2005). Patients with oral lesions are often first seen by general practitioners, both medical and dental.

Therefore, general practitioners are in a unique position to detect oral cancer at early stages (Kujan et al. 2013). Dentists working in Albania receive formal education and training in prevention and detection of oral cancer during their undergraduate studies in their respective dental schools. However, there are no specific courses currently available in Albania for the dentists working in various sectors. Therefore, assessing dentists' knowledge and practices regarding oral cancer risk factors and diagnostic concepts on a "large scale" would provide baseline information that might help in future planning of undergraduate and continuing professional education programmer. This study was designed to evaluate the knowledge, opinions, and practices of dentists in Tirana, Albania regarding the early detection oral cancer and to explore potential educational needs in this regard.

## **Materials and Methods**

The questionnaire used in this study consisted of 15 close-ended questions which contain information on the participants' characteristics such as gender, age, number of years since graduation, type of clinical practice working and highest qualification.

Furthermore, information on the level of knowledge was based on risk factors associated with oral cancer and precancerous lesions, oral cancer and precancerous lesions diagnostics, and perception on training and continuous education in oral cancer and precancerous lesions. The survey was developed from previously validated tools in other studies (Decuseara et al. 2011), (Joseph et al. 2011), with modifications particularly in risk factors associated with the disease in Albanian population.

The questionnaire was first validated among a convenient sample (10 dentists) to ensure clarity of interpretation and ease of completion. A total of 200 dentists working in Tirana, Albania, were selected for inclusion in this study. At least one year of work experience in the current position was a criterion for eligibility to be included in the study. The Clinics were selected randomly. This includes private dental clinics/polyclinics, medical centers, and university polyclinics. The purpose of the questionnaire and how they should be answered was explained. The questionnaires were distributed by the researchers between June 2022 and October 2022. All the data were entered in the Microsoft Excel, and then data analyses were performed.

## Results

This cross-sectional study evaluated knowledge and practice of dentists in Tirana, Albania regarding early detection of oral precancer/cancer lesions. A total of 200 dentists participated in this study with a total response rate of 100%. Of the 200 dentists 112 (56%) were male and almost 79,5% of the dentists are younger than 45 years. Over 53.5% of the respondent had practiced for less than 10 years as a dentist. Only 18.5% had a post graduate qualification (Table 1). To examine participant's knowledge about pre-cancer and cancer conditions; dentists were asked about risk factors and the most common sites affected by oral cancer. Dentists were aware of the major risk factors most likely associated with (Table 2), since 98.5% of them identified smoking cigarettes as a risk factor for developing oral cancer, followed by previous history of oral cancer 90.0%, alcohol use 91.0%, viral infection (HPV-Human Papilloma Virus) 67.0%, ultraviolet exposure 85.0%, older age 62.0% and low consumption of fruits/vegetables 63.5%. Around one-fourth of the respondent paid attention to the overall tongue as a potential site for malignancy (Table 3).

Looking at the dentist's knowledge about oral cancer; enlargement of cervical lymph nodes was the best-known clinical presentation of oral cancer (85.5%), followed by persistent ulcer (82.5 %); other possible presentation of oral cancer including white and red lesion and dysphagia was also known to more than 65% of the dentists. Assessing dentist's knowledge about the most common type of oral precancerous lesion; leukoplakia followed by erythroplakia, lichen planus and oral mucous fibrosis were the best-known conditions by the participants. But we must mention that 17% of respondents were uncertain about the most common type of oral precancerous lesion.

The most common form of oral cancer was recognized squamous cell carcinoma (60%) followed by malignant melanoma. We must mention that 19.5% of respondents were uncertain about the most common form of oral cancer. As age group more vulnerable for lesions to become malignant was identified the group 20–30 years of age by 53.5% of respondents and only 13% identified the group above 40 years of age. Regarding the diagnostic techniques for oral precancer/cancer lesions (Table 4) 40% of the respondents reported biopsy (41.5%) as the most common diagnostic technique followed by exfoliative cytology (28.5%) and brush biopsy (27.0%); to a less extent they recognized toluidine blue (11.5 %) and fluorescent imaging (5.0%).

As a tool for the definitive diagnosis for oral precancer/cancer lesions was identified radiographic examination (45%); and only 25.5% identified histopathological examination. Knowledge about respondents’ opinions and perceptions regarding oral cancer are given in Table 5. Sixty-eight dentists felt confident to examine and diagnose an oral precancerous/cancer lesion. Only twenty-three dentists (11.5%) felt adequately trained in diagnostic techniques for early detection of oral precancerous/cancer lesion and were comfortable in performing a biopsy. Further analysis also showed that only 10 respondents (5%) attended trainings/seminars related to oral precancer/cancer lesions recently. Almost 89% felt that they need further training on oral precancerous/cancer lesion early detection, and 183 of the respondents (91.5%) would like that continuing education programs focus more on this topic in the future.

Table 1 Background characteristics of the respondents.

		<i>n</i>	%
Gender	Male	112	(56.0)
	Female	88	(44.0)
Age	25–35	98	(49.0)
	35–45	61	(30.5)
	45–55	28	(14.0)
	55+	13	(6.5)
Time since graduation	Less than 10 years	107	(53.5)
	More than 10 years	93	(46.5)
Qualification	General dentist	163	(81.5)
	MSc/PhD	37	(18.5)



Type of practice	University clinic	21	(10.5)
	Private clinic	179	(89.5)

Table 2 Knowledge about oral cancer risk factors.

	Yes <i>n</i> (%)	No <i>n</i> (%)	Uncertain <i>n</i> (%)
Smoking cigarettes	197 (98.5%)	1 (0.5%)	2 (1.0%)
Low consumption fruit/vegetable	127 (63.5%)	25 (12.5%)	48 (24.0%)
Ultraviolet exposure	170 (85.0%)	9 (4.5%)	21 (10.5%)
Viral infection (HPV)	134 (67.0%)	16 (8.0%)	50 (25.0%)
Alcohol use	182 (91.0%)	9 (4.5%)	9 (4.5%)
Prior malignant/premalignant disorders	180 (90.0%)	9 (4.5%)	11 (5.5%)
Older age	124 (62.0%)	46 (23.0%)	30 (15.0%)

Table 3 Clinical Evaluation about oral precancer/cancer lesions.

		<i>n</i>	%
The most common sites of oral precancerous lesion	All sites equally	58	29.0
	Floor of the mouth/under the tongue	43	21.5
	Mucous membrane	20	10.0
	Hard and soft palate	31	15.5
	The tongue	48	24.0
The most common type of oral precancerous lesion	Erythroplakia	22	11.0
	Leukoplakia	129	64.5
	Lichen planus	8	4.0
	Oral mucous fibrosis	7	3.5
	Uncertain	34	17.0
The most common form of oral cancer	Squamous cell carcinoma	120	60.0
	Basal cell carcinoma	11	5.5
	Malignant melanoma	17	8.5
	Salivary gland tumors	13	6.5
	Uncertain	39	19.5

Age group vulnerable for lesions to become malignant			
	Under 20	40	20.0
	20–30	107	53.5
	30–40	27	13.5
	Above 40	26	13.0
Clinical presentation of oral cancer nodes	Persistent ulcer	165	82.5
	Enlarged lymph nodes	171	85.5
	White lesion	153	76.5
	Red lesion	133	66.5
	Dysphagia	128	64.0

Table 4 Diagnostic and diagnostic techniques for oral precancer/cancer lesions

		<i>n</i>	<i>%</i>
Diagnostic techniques	Biopsy	83	41.5
	Brush biopsy	54	27.0
	Toluidine blue	23	11.5
	Fluorescent imaging	10	5.0
	Exfoliative cytology	57	28.5
The definitive diagnosis for oral precancer/cancer lesions			
examination	Physical examination	31	15.5
	Radiographic examination	90	45.0
	Histopathological	51	25.5
	All have the same value	21	10.5
	Uncertain	7	3.5

Table 5 Knowledge about respondents' opinions and perceptions.

	<i>n</i>	<i>%</i>
I feel confident to examine and diagnose an oral precancerous/cancer lesion.	68	34.0

I am adequately trained in diagnostic techniques for early detection of oral precancerous/cancer lesion.	23	11.5
I feel confident to perform biopsy in my clinic.	23	11.5
I have done trainings/seminars on oral precancerous/cancer lesion recently.	10	5.0
I need further training on oral precancerous/cancer lesion early detection.	178	89.0
I would like that continuing education programs focus more on this topic in the future.	183	91.5

## Discussion

Many dentists appeared to have a good knowledge of the risk factors and the clinical presentation of oral cancer. However, the findings of the present study identified several deficiencies in the knowledge of dentist working in Tirana, Albania about the diagnostic techniques and conditions associated commonly with early oral cancer. Inadequate knowledge about oral cancer has been widely documented among general practitioners from both developed and developing countries (Babiker et al. 2017), (Kebabcioğlu et al. 2017). Lack of awareness of oral cancer risk and clinical signs may prohibit dentists from delivering preventive advice. The lack of knowledge observed could be attributed to the fact that most of the participants practicing in private clinics did not receive any further information or update after finishing dental school. It is well-established that oral cancer is largely related to lifestyle and as health care providers; dental practitioners should be aware of these factors and further, play a central role in providing information about the benefits that could result from the changing of lifestyle habits (Galvão-Moreira et al. 2017). It is encouraging that large majority of dentist identified most risk factors for oral cancer. Tobacco use is the main risk factor for oral cancer and was identified by almost all respondents which indicate that dentist's knowledge is consistent with the current understanding of the etiology of oral premalignant and malignant lesions.

This was in accordance with the results of (Jaber 2011) and (Colella et al. 2008). Unfortunately, despite the availability of oral cavity for examination and not requiring advanced tools and not being uncomfortable for the patients, most cases of oral cancers are diagnosed when the symptoms appear because of the progress of the disease (Varela-Centelles et al. 2017). Many diagnostic techniques have been used to help in screening and early detection of oral cancer (Walsh et al. 2013), (Masthan et al. 2012). The observation that many precancerous lesions that are not biopsied progress to cancer underlines the need for routine biopsy of oral precancerous lesions regardless of clinical impression. Results from some studies also reinforce the need for adjunctive tools for improved triage and reduced sampling errors in the biopsy of

oral precancerous lesions (Anil et al. 2020). The clinical recognition and evaluation of oral mucosal lesions can detect up to 99% of oral cancers/premalignancies.

As stated by the World Health Organization, any suspicious lesion that does not subside within two weeks from detection and removal of local causes of irritation must be biopsied. Surgical biopsy remains the gold standard for diagnosis of oral cancer. Adjunctive tools have been developed and studied to help clinicians in the diagnostic pathway, such as toluidine blue staining and autofluorescence imaging. Soon other methods, i.e., identification of salivary markers of progression may help in reducing mortality due to oral cancer (Abati et al. 2020). Even though, biopsy is considered the gold standard in oral cancer diagnosis, not all the respondents were aware of this fact, and fewer had knowledge about other less invasive techniques such as brush biopsy, toluidine blue, fluorescent imaging and exfoliative cytology. Lack of experience in performing biopsies should be attributed to insufficient importance placed on the practical teaching of biopsy techniques during their undergraduate training (Murgod et al. 2011). Despite, staining of live tissue with toluidine blue has been identified as a useful aid in selection of biopsy site in cases of premalignant lesions, (Scully et al. 2008) unfortunately few respondents identify it as a useful diagnostic technique.

Leukoplakia and erythroplakia are the best known oral potentially malignancy disorders and it was not identified by most respondents. Dentists need to possess a thorough knowledge of clinical signs of oral cancer to be effective in identifying, referring, and counseling high-risk patients. Oral visual screening can reduce mortality in high-risk individuals and has the potential to prevent oral cancer deaths. Regardless the high knowledge on risk factors of oral cancer, the lack of confidence in conducting comprehensive oral cancer examination and performing biopsy in the clinic is evident. Similar finding has been reported by several authors (Murgod et al. 2011), (Anandani et al. 2015).

Dentists are familiar with the structures and health of the oral cavity and are the first group who might examine patients for main signs and symptoms of oral cancer; so, they can significantly enhance the life expectancy in patients suffering from oral cancers. Conventional oral examination still constitutes the gold standard screening tool for potentially malignant oral lesions and oral cancer. There are many reasons why dentists may avoid mucosal screening. Obstacles like lack of training and lack of confidence can hinder doctors' ability or even motivation to perform mucosal screening. Similar finding has been reported by (Brocklehurst et al. 2010), and (LeHew et al. 2010). The chance of curing oral cancers increases if patients are diagnosed and treated early (Khani et al. 2022). The results of surveys suggest that dentists do perform oral cancer screenings, but there is only weak evidence that screening in dental practices leads to downstaging of disease (Warnakulasuriya et al. 2021). Therefore, educational strategies should be aimed at providing current information on oral examinations, diagnostic techniques and conditions associated

with oral cancer to facilitate early detection and follow up. It is well established that dentists' knowledge and practices are positively influenced by continues education courses (Silverman et al. 2010). In recent studies, it is shown ability to detect genetic alterations from noninvasive samples.

This opens the door to prospective studies to determine whether implementing this information in the clinic will lead to earlier detection and better patient outcome (Poell et al. 2023). Although the response rate of our study was good, one of the main limitations of this type of research is that what respondents report may differ from what they do. The tendency of dentists to provide socially acceptable answer might bias the outcome.

However, the anonymous nature of the questionnaire should have minimized this type of information error. Despite this limitation, we think that this study provides some important information about dentists' knowledge and opinion regarding oral cancer. This might be considered by continuing education programs, to influence on practitioners in the future, by improving their knowledge and early detection process.

## Conclusions

Dentists should be aware of all aspects regarding precancerous lesions to optimize early diagnosis and referral of oral cancer and precancerous lesions patients. There is need for further training courses and continuing education regarding early detection and prevention of oral cancers and precancerous lesions. Most dentists expressed their willingness to attend training courses in oral cancer and precancerous lesions screening and prevention in the form of interactive seminars or continuing education lecturers. This must be noted by our dental and medical education planners, to include content on smoking and alcohol risks and related educational programs, along with the latest diagnostic and detection techniques for oral cancer and precancerous lesions.

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## Populism, Stigma and Human Rights

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### Abstract

From a historical perspective, each century has its own notable events. The first two decades of the 21st century began with high hopes and advancements in technology for society. However, it also inherited many issues and problems from the previous century and has been faced with global events. Human rights and the environment, specifically climate change, remain ongoing concerns. Efforts to address environmental issues have also highlighted societal issues among individuals and between countries, such as the rise of populism. Populist ideologies, politicians, and religious factions have caused divisions among people, groups, nations, and countries. This has led to labelling, stereotyping, discrimination, and loss of status for some, and has stigmatized people and relationships worldwide. Stigma is also used as a tool in the pursuit of power and control over society, as some individuals and groups strive for social status and to prove their superiority. Stigma can change how people understand facts, shape society, and create new social narratives that affect how society is organized, either positively or negatively. Discourses that are negative can weaken social cohesion, increase racial segregation, and lead to social isolation of certain groups. Different ideologies and perspectives can also lead to societal stigma and discrimination against members of specific groups. People or organizations with distinct ideologies or belief systems may incite others in the community to engage in stigmatization, marginalization, discrimination, or even genocide. Throughout history, there have been many examples of these atrocities. It is crucial to promote and foster an atmosphere of understanding, tolerance, and friendship with a focus on human rights among all nations, racial, and religious groups in society. According to human rights principles, all humans are born free and equal in dignity and rights, and it is essential to respect and protect these rights for all individuals. This can be accomplished through education, awareness campaigns, and fostering a culture of acceptance and inclusivity.

**Keywords:** Populism, Stigma, Society, Culture, Human Rights

## Introduction

Throughout history, each century has its own distinctive events. The early years of the 21st century was marked by high expectations and advancements in technology, but also inherited problems from the past century and faced global challenges. The global problems - human rights the environment, and climate- change continue to be major concerns (Ostrom et al. 1999; Gerencser et al. 2008; Wall, 2017). Efforts to tackle environmental problems have brought to light issues within society and among nations, such as the emergence of populism.

Populism, a political ideology that prioritizes the concerns and interests of the common people over those of the elite, has gained significant traction in recent years. As a term populism is characterized by a belief in the sovereignty of the people and a rejection of the established political and economic systems (Müller, 2017). Populists often claim to speak on behalf of the "real" people and to defend the interests of the marginalized against the elites. It is considered by a focus on the needs and concerns of ordinary citizens, and a belief in the power of the people to bring about change (Brubaker, 2017). Populist leaders, ideologies, and religious groups have created division and led to labeling, stereotyping, discrimination, and loss of status for some (Adler-Nissen, 2014). However, populist leaders and movements have been criticized for using stigmatizing language and rhetoric that targets marginalized groups, leading to discrimination and human rights violations.

While populism has been a powerful force throughout history, it has also been met with a great deal of stigma. Critics of populism often argue that it is demagogic and anti-intellectual, and that it can lead to the rise of authoritarian leaders (Updegaff, 2005; Jones, 2019). So, stigma is also used to attain power and control over society, as some individuals and groups strive for dominance and to assert their superiority.

However, it is important to mention that populism is not inherently negative. Populism can be a powerful force for positive change, and many populist movements have played a key role in advancing social and political reforms (Bimber, 1998: Rodrik, 2018). For example, the Civil Rights Movement in the United States was a populist movement that fought for the rights of marginalized communities.

This paper aims to examine the relationship between populism, stigma, and human rights by drawing on research from multiple disciplines, including political science, sociology, psychology, and human rights studies. Firstly, it will be explored by understanding populism the psychological and social factors that contribute to the appeal of populism, the negative effects of stigmatization on marginalized groups, and the role of relative deprivation and social identity threat in support for populism. Secondly, it will be shown some examples by explaining the relations between the populism and stigma, by the explanation how it can lead to discrimination using stigmatizing language and rhetoric. Additionally, the paper will analyze the importance of inclusive policies and programs, the role of civil society organizations

and media in holding populist leaders and movements accountable, and the values and principles of human rights in the face of populist ideologies and stigmatization. The paper concludes by emphasizing the need for an interdisciplinary approach to understanding the relationship between populism, stigma, and human rights.

### **Understanding Populism through the Psychological and Social Factors**

People who are dissatisfied, alienated, and disaffected with the political establishment are frequently drawn to populism and populist leaders, according to a popular understanding. It can manifest in different forms, such as left-wing populism, which advocates for the rights of marginalized groups, or right-wing populism, which focuses on nationalist and anti-immigrant sentiments. In general, populism is a complex political ideology that has been met with both support and opposition (Müller, 2017). While it has the potential to bring about positive change, it is also associated with a range of negative outcomes, including the erosion of civil liberties and democratic institutions, and the rise of extremist politics (Bimber, 1998; Vittori, 2022). It is important to approach the topic of populism with a critical and nuanced perspective, rather than stigmatizing it outright. Populism can also be used as a tool by political actors to gain power by manipulating these psychological and social factors.

**Economic Insecurity:** People who are struggling financially may be more likely to support populist candidates and movements, as they may see them as offering a solution to their economic problems.

**Social Identity:** People who feel that their social identity is under threat may be more likely to support populist candidates and movements, as they may see them as offering a sense of belonging and protection.

**Sense of Fairness:** People who feel that they are not getting a fair deal may be more likely to support populist candidates and movements, as they may see them as offering a more equitable distribution of resources and opportunities.

**Lack of Trust in Institution:** People who have lost trust in institutions such as government, media, and business may be more likely to support populist candidates and movements, as they may see them as more authentic and trustworthy.

**Need for Certainty:** People who crave certainty and stability may be more likely to support populist candidates and movements, as they may see them as offering a clear and simple vision for the future.

**Fear of Change:** People who fear change may be more likely to support populist candidates and movements, as they may see them as offering a return to a simpler and more familiar past.

Emotion-driven Decision making: People who make decisions based on emotions rather than facts and reason may be more likely to support populist candidates and movements, as they may be more appealing to emotions than to reason.

It's important to note that these factors are not mutually exclusive, and that different individuals may be motivated by different combinations of factors. And relative deprivation and social identity threat can play a significant role in support for populism.

Relative deprivation refers to the perception that one's own situation is worse than that of others (Kunst&Obaidi, 2020). When people feel that they are worse off than others, they may be more likely to support populist candidates and movements, as these leaders often present themselves as champions of the "common people" who are fighting against an elite class. It can be said that populist movements often blow into feelings of relative deprivation by highlighting issues such as income inequality, unemployment, and lack of social mobility.

Social identity threat refers to the perception that one's social identity is under threat (Verkuyten et al. (2019). When people feel that their social identity is under threat, they may be more likely to support populist candidates and movements, as these leaders often present themselves as protectors of the "true" nation or group against perceived threats from outsiders. It can be seen that populist movements often tap into feelings of social identity threat by highlighting issues such as immigration, terrorism, and cultural change.

Both relative deprivation and social identity threat can lead to increased support for populist movements. They provide a sense of belonging, recognition, and protection to people who feel marginalized and disenfranchised with the status quo (Richter et al. 2020). Populist leaders often use rhetoric that reinforces the idea that the "ordinary people" are being left behind, and that they will take action to correct this injustice (Ditto&Rodriguez, 2021).

It's important to note that these factors alone do not determine support for populism, and other factors such as economic insecurity, lack of trust in institutions, and need for certainty also play a role. Additionally, it's important to consider that populism can also be used as a tool by political actors to gain power by manipulating these psychological and social factors.

### **Populism and Stigma**

Populism can lead to stigma in several ways. One of the most common ways is by stigmatizing language and rhetoric. Populist leaders and movements often use language that scapegoats certain groups, such as immigrants or minorities, and portrays them as a threat to the "real" people (Yilmaz& Morieson, 2021). This can lead to increased prejudice and discrimination towards these groups and can also have negative effects on their human rights. Another way in which populism can lead to

stigma is through the implementation of policies that disproportionately affect marginalized groups (Deakin et al. 2022). For example, a populist leader who campaigns on an anti-immigrant platform may enact policies that restrict immigration, leading to discrimination and marginalization of immigrant communities. Similarly, populist leaders who promote nationalism may enact policies that discriminate against ethnic or religious minorities.

Populism can also lead to stigmatization by creating a hostile political environment where hate speech, xenophobia, and racism become normalized. This can create a society where people feel unsafe, unwelcome, or discriminated against, leading to further division and marginalization.

Additionally, populism can lead to stigma by promote a sense of "otherness" towards certain groups, portraying them as fundamentally different and therefore less deserving of rights and privileges. This can lead to dehumanization, which can then justify discrimination against the targeted groups.

In short, populism can lead to stigma and discrimination by promoting a divisive and hostile political environment, scapegoating marginalized groups, and implementing policies that disproportionately affect these groups (Yilmaz& Morieson, 2021; Deakin et al. 2022).

Stigmatization can have a wide range of negative effects on marginalized groups, including:

**Psychological harm:** Stigma can lead to feelings of shame, guilt, and self-blame among members of marginalized groups, which can lead to mental health issues such as depression, anxiety, and post-traumatic stress disorder.

**Social isolation:** Stigma can lead to social isolation, as members of marginalized groups may feel unwelcome in certain spaces and may be less likely to participate in social activities.

**Economic harm:** Stigma can lead to economic harm, as members of marginalized groups may face discrimination in the workplace and may be less likely to be hired or promoted.

**Reduced access to healthcare:** Stigma can lead to reduced access to healthcare, as members of marginalized groups may be less likely to seek medical care out of fear of discrimination or stigmatization.

**Human rights violations:** Stigma can lead to human rights violations, as members of marginalized groups may be targeted by discriminatory laws and policies and may be denied access to basic rights and services.

Violence and discrimination: Stigma can lead to increased violence and discrimination against marginalized groups, as people may feel more justified in their negative attitudes and discriminatory behavior towards them.

Political marginalization: Stigma can lead to political marginalization, as members of marginalized groups may be less likely to participate in the political process and may be underrepresented in government and political decision-making.

It is important to note that stigmatization can have multiple and compounding effects on marginalized groups, and that it can lead to a wide range of negative consequences for individuals and communities. It is critical to challenge stigmatizing rhetoric and discrimination when it arises, and to promote the values and principles of human rights in the face of populist ideologies.

There are many examples of populist leaders and movements that have used stigmatizing language and rhetoric in recent years. Some examples include:

Recep Tayyip Erdogan, the President of Turkey, who has been criticized for using populist rhetoric to divide and marginalize certain groups and communities (Eksi&Wood, 2019; Yilmaz et al. 2021).

Matteo Salvini, the former Deputy Prime Minister of Italy, who has been accused of using xenophobic and racist language against immigrants and minorities (Cervi&Tejedor, 2020).

Viktor Orbán, the Prime Minister of Hungary, who has been criticized for using anti-Semitic and anti-immigrant language in his campaigns (Sadecki, 2022).

Donald Trump, the former President of the United States, who has been accused of using divisive and racist language against immigrants, minorities, and the LGBTQ+ community (Locke, 2022).

Jair Bolsonaro, the President of Brazil, who has been accused of using racist, sexist, and homophobic language in his campaigns and has been criticized for his disregard of Indigenous people and the Amazon rainforest (Elizabeth, 2020).

Vladimir Putin, the President of Russia, who has been accused of using anti-Western language in his campaigns (Eksi&Wood, 2019).

Geert Wilders, the Dutch politician, who has been known for his anti-Islamic rhetoric and his party's anti-immigrant stance (Brubaker, 2017).

Marine Le Pen, the French politician, who has been known for her anti-immigrant stance and her party's rhetoric targeting minorities, particularly the Muslim community (Martins, 2012).

Nigel Farage, the British politician, who has been known for his anti-immigrant stance and his party's rhetoric targeting immigrants and refugees (Durrheim et al. 2018).

These are just a few examples, and there are many other populist leaders and movements that have used stigmatizing language and rhetoric in various countries around the world.

Stigmatization of marginalized groups, such as immigrants, minorities and the LGBTQ+ community (Mitchell et al. 2021), can have a range of negative effects. These effects can include a decrease in self-esteem, feelings of isolation and alienation, a decrease in social capital and access to resources, increased stress and anxiety, and an increased risk of depression. Stigmatization can also lead to discrimination in the workplace or other areas of life and may lead to a lack of access to education or other opportunities. On the other hand, stigma can lead to negative health outcomes, including poorer physical and mental health, as well as reduced access to medical care. So, stigmatization can lead to feelings of hopelessness and despair, which can further exacerbate the already difficult situations marginalized groups often face.

Several negative effects of marginalized individuals' stigma can be explained as follows:

**Decreased self-esteem and self-worth:** Stigmatization can lead individuals to internalize negative attitudes and beliefs about themselves, leading to decreased self-esteem and self-worth.

**Increased stress and anxiety:** Stigmatization can create a constant state of stress and anxiety for individuals, leading to physical and mental health problems.

**Social exclusion:** Stigmatized individuals may experience exclusion from social groups and activities, limiting their opportunities for social support, education, and employment.

**Employment discrimination:** Stigmatized individuals may face discrimination in the workplace, which can lead to unemployment or under-employment, poverty, and reduced access to healthcare and other essential services.

**Intergenerational transmission:** Stigmatization can have lasting effects that are passed down from one generation to the next, perpetuating cycles of poverty, exclusion, and discrimination.

These negative effects can have far-reaching consequences, impacting not just the individuals directly affected, but also their families and communities.

## **Human Rights and Populism**

Protecting and promoting human rights in the face of populism and stigmatization can be challenging (Bílková, 2019; Lake et al. 2021; Lynch&Sinclair, 2022; Mégret, 2022), as populist leaders and movements often use stigmatizing language and rhetoric to target marginalized groups, which can lead to discrimination and

violations of human rights. However, there are several ways in which human rights can be protected and promoted in these contexts:

**Strong legal protections:** Having strong laws and institutions in place that protect human rights, such as independent judiciaries and human rights organizations, can help to ensure that marginalized groups are protected from discrimination and abuse.

**Media and civil society:** A free and independent media and a vibrant civil society can play an important role in promoting human rights by raising awareness of issues, holding politicians accountable and providing a platform for marginalized groups to voice their concerns.

**International cooperation:** International organizations such as the United Nations and regional human rights bodies can play an important role in promoting and protecting human rights by providing support and guidance to governments and civil society organizations.

**Educating and building public awareness:** Education and building public awareness of human rights and the negative effect of stigmatization is crucial. Populist leaders often use stigmatizing language to create fear and division, so it's important that people understand the facts and the impact of such rhetoric.

**Supporting marginalized groups:** Supporting marginalized groups and organizations that work to promote their rights can help to ensure that their voices are heard and that their rights are protected. This can include providing financial and other forms of support to organizations that work to promote human rights, as well as providing direct support to marginalized groups such as refugees and people with disabilities.

**Encourage accountability and transparency:** Populist movements and leaders often operate in an opaque manner, hiding behind slogans and rhetoric, so encouraging transparency and accountability in political process can help to ensure that human rights are protected and promoted.

It's important to mention that protecting and promoting human rights in the face of populism and stigmatization requires a multifaceted approach and the active participation of governments, civil society organizations, and individuals. When populist movements and leaders target marginalized groups, so it's important to be vigilant and to take action to protect human rights when they are threatened.

### **The Importance of Inclusive Policies and Programs**

Inclusive policies and programs are essential in addressing the negative effects of populism and stigmatization (Updegaff, 2005), as they can help to promote equality and protect the rights of marginalized groups. Some of the keyways in which inclusive policies and programs can promote equality and protect human rights include such as addressing economic inequality, promoting social inclusion, protecting vulnerable



groups, promoting diversity and cultural understanding and encouraging civic participation.

Encouraging civic participation is the one can be inclusive policies and programs such as voter registration drives, and civic education can help to increase civic participation and ensure that all voices are heard in the political process.

Inclusive policies and programs are an essential counterbalance to populism and stigmatization (Bimber, 1998), because they promote equality, protect the rights of marginalized groups, and foster a more inclusive society. It's important to aware that inclusive policies and programs require active engagement from government and civil society and need to be implemented in a way that is responsive to the needs of marginalized groups.

Civil society organizations (CSOs) and media play a crucial role in holding populist leaders and movements accountable and promoting human rights (Updegaff, 2005; Wall, 2017; Natil, 2020; Bourchier& Jusuf, 2022). The role of CSOs and media in this regard can be broken down as follows:

**Civil society organizations:** CSOs such as human rights organizations, advocacy groups, and community-based organizations can play a key role in holding populist leaders and movements accountable by raising awareness of human rights abuses, documenting violations, and advocating for policy changes. They can also provide support and resources to marginalized groups, helping them to advocate for their own rights.

**Media:** Media, particularly independent media, play a critical role in holding populist leaders and movements accountable by providing accurate and balanced coverage of political events, exposing corruption and abuse of power, and giving voice to marginalized groups. Media can also play a role in educating the public about human rights and the negative effects of stigmatization.

**Monitoring and reporting:** Both civil society organizations and media can monitor and report on the actions and statements of populist leaders and movements, highlighting any instances of stigmatization or discrimination, as well as any violations of human rights. This helps to ensure that these leaders and movements are held accountable for their actions and that the public is informed about these issues.

**Providing a platform for marginalized groups:** Civil society organizations and media can provide a platform for marginalized groups to voice their concerns, tell their stories, and advocate for their rights. This can help to ensure that the perspectives and needs of marginalized groups are heard and addressed.

**Advocating for policy changes:** Civil society organizations and media can advocate for policy changes that promote human rights and address the negative effects of populism and stigmatization. This can include advocating for laws and policies that

promote equality and inclusiveness, such as anti-discrimination laws, affirmative action, and support for marginalized groups, as well as pushing for transparency and accountability in government and the media.

Civil society organizations and media play a vital role in holding populist leaders and movements accountable and promoting human rights (Bílková, 2019). They can monitor and report on the actions and statements of populist leaders, give a platform to marginalized groups, and advocate for policy changes that promote equality and inclusiveness. A strong and independent civil society and media are essential for a healthy democracy and the protection of human rights.

### **Discussion and Conclusion**

An interdisciplinary approach is crucial for understanding the complex relationship between populism, stigma, and human rights. This approach brings together perspectives and insights from various fields, including political science, sociology, psychology, and human rights studies, to provide a comprehensive understanding of the issues at hand.

For instance, political science can provide insights into the origins and characteristics of populist movements and leaders, while sociology can explore the social and economic factors that contribute to their rise. Meanwhile, psychology can offer an understanding of why certain individuals and groups may be drawn to populism, and how stigmatization and discrimination can be perpetuated by populist rhetoric. Human rights studies can examine the ways in which populism and stigmatization can lead to violations of human rights, and the strategies that can be employed to protect and promote human rights in the face of these challenges.

In addition to promoting the values and principles of human rights, it is also important to examine the social and economic factors that contribute to the rise of populist movements. For example, relative deprivation, social identity threat, and lack of representation in political and economic institutions can all contribute to support for populism. Providing a more complete understanding of the issues, an interdisciplinary approach can also lead to more effective strategies for addressing populism, stigmatization, and human rights. For instance, a political scientist may suggest electoral reforms to combat populist movements, while a sociologist may propose policies to address economic inequality. Together, these perspectives can inform a comprehensive strategy for promoting human rights and combating populism and stigmatization.

It is crucial to defend the values and principles of human rights in the face of populist ideologies and stigmatization. Populist ideologies and stigmatization often threaten human rights and should be combated by promoting an inclusive society and by addressing the underlying social and economic factors that contribute to the rise of

populism. By doing so, we can ensure that all individuals are treated with dignity and respect, and that human rights are protected and promoted for all.

In conclusion, an interdisciplinary approach is essential for understanding the complex relationship between populism, stigma, and human rights. By bringing together perspectives from various fields, it can provide a comprehensive understanding of the issues, and inform more effective strategies for addressing them. It is important to consider the different aspects of the problem and the possible ways to solve it.

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## **Techniques and Strategies of Communication and Cooperation with Colleagues Inside and Outside the School**

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### **Abstract**

The communication and cooperation with colleagues, has been seen that it affects the performance of teachers at school, their desire for work and the love and quality with which they conduct lessons, as well in creating a positive school climate although it is not talked too much and is not addressed in the various reports. This paper aims to develop and understand different forms of communication with colleagues in educational institutions, in order to increase and improve cooperation between them. The paper also aims to bring techniques and strategies that will increase the communication and cooperation skills between teachers, based on the review of a wide literature, its evaluation by bringing contemporary studies as well as different viewpoints regarding the relationship between the pedagogical staff in the school and outside of it. The cooperation helps the realization of the Individual Education Plan, but also the planning of educational work at school. This cooperation aligns work objectives to develop the student's potential and to improve student's results. A bad and non-cooperative relationship with colleagues and managers affects quality reduction. In most of their work, teachers are seen not only as transmitters of knowledge, but also as behavior models and educators of a new generation. It is thought that cooperation has an impact on the teacher's performance, but also on the students' performance and results. The article combines the researcher's point of view, and gives some recommendations as well-planned implementation to successfully influence the collaborative process and progress, teaching staff must function as a team and abandon traditional norms of isolation and individualism. The investment in time to do this kind of practical and applied work should be accompanied by redesigned guidelines that are more coherent and structurally sound.

**Keywords:** teacher collaboration; teacher performance; director's role; communication; students' performance

## Introduction

Nowadays, the school has undergone a change in system and structure, programs and ideas. Albania is one of the countries with the longest transition and also one of the developing countries, and as such its educational system has been part of various transitions and reforms undertaken to improve quality. These reforms and almost all the given recommendations emphasize the structural side of the system and the way the process works, curricular changes and improvements, teaching methods, etc. In our schools, today we talk about teacher-pupil, teacher-parent and vice versa relationships in both cases, as well as the school-community relationship. Of course, these relationships are very important and significant for the school, but it seems clear that an equally important element has been forgotten, the teacher-teacher relationship, the creation of a good climate of cooperation and the exchange of experiences between them, which in contemporary and international literature is seen as a strong point in improving the performance of the school.

The "Framework for School Quality Assessment" in Albania has defined four areas of quality, which are directly related to the entire activity of the school and determine its performance as a whole. These areas are: School leadership and management, quality of teaching and learning, student assessment and achievement, and student well-being and behavior (ASCAP 2020). Even in this document drawn up by the quality assurance agency in pre-university education, the relationships of teachers with each other inside and outside the school are not included, but the relationships of teachers with other actors and partners outside of it are foreseen.

The various researches developed in this direction, conclude that today's teachers and school leaders are more interested in the cooperation of teachers than the previous generations.

Historically, it has been common for teachers to work independently, and not much importance has been paid to the relationships between them. Today, the cooperation of teachers with each other, the sharing of knowledge between them, the discussion of ideas and the joint contribution to solving problems is becoming more and more important. Proponents of teacher collaboration believe that teachers working together have a positive influence on each other and naturally contribute to school improvement and increased student achievement. Specific types of teacher collaboration include working together in teams, sharing responsibilities, providing feedback, and building trust.

Therefore, more and more teachers are being asked to work in a team and school leaders to be the leader of this team. For years, school leadership has been a priority of education policies around the world. The role of school leaders has become a determining factor in improving its results. But what happens in Albania? The position of the head of the school is a "Political" position, which means that it has nothing to do with his skills or preparation, but how much he contributed to the party



that wins the electoral elections. This is an unwritten rule, but one that is known and accepted. Even the changes of leaders in different schools depend precisely on the party and politics. This often causes mistrust among the staff and conflicts between teachers and leaders, as well as the creation of different groups within the staff of the same school. Many studies undertaken have as their object the discovery of the main reasons behind successful schools and at the end of these research it has been found that the greatest achievements of schools are closely related to their successful management. So far, there has not been a single case where the improvement in student achievement of a particular school has not been the result of its leadership by talented principals. (Louis, S Karen; Leithwood Kenneth; Wahlstrom L Kyla; Anderson, E Stephen, 2010).

One of the most interesting findings in research conducted by both Meyer & Cohen and Pellegrin is that when teachers work in groups, they have significantly greater influence in decision-making and policy formulation within the school (Johnson, 1976).

Two findings from other studies indicate that:

a) high levels of support from teachers for each other are related to high self-concept of students and students are less likely to show symptoms of depression (Reddy, Rhodes and Mulhall, 2003).

b) collegial cooperation between teachers and between teachers and school leaders improves the school climate (Rutter, 2000; Rutter and Maughan, 2002).

Recent research suggests that factors related to school organization can improve and sustain teachers' job satisfaction. In particular, job satisfaction appears to vary and depend on the absence or existence of a professional community in the school, the extent to which teachers engage in collegial collaboration, and how much autonomy the teacher can exercise in the school (Stearns et al., 2015). The relationships of teachers with their principals, in terms of socio-emotional and organizational aspects regarding leadership opportunities and professional freedom over classroom policies, influence teachers' job satisfaction and commitment (Price, 2012; Stearns et al., 2015).

## **Methodology**

This article is part of a broader and more in-depth study which analyzes the relationships of teachers with each other inside and outside the school institution. Likewise, in this study, the role of the leader to create a positive climate and to promote positive relationships between teachers is analyzed. The study deals with how these two components affect school performance, the relationship between teachers and the role of the leader in these relationships.

This article is based on the review of the literature, being careful in the selection of a contemporary literature, articles published in scientific journals and with impact factors, considering the adaptation to the Albanian context.

The purpose of this article is to highlight the importance and the benefits derived from the cooperation between teachers and school leaders, not only on the professional side, but also in socio-emotional support, to present effective strategies and the key points of cooperation between teachers.

### **Definitions**

Montiel-Overall (2005) defined collaboration as the process of co-creation where two or more individuals with complementary skills interact to create a shared understanding that no one previously possessed or could have formulated on their own. At its core, collaboration is a commitment to share resources, power, and talent. Collaboration is not just collegiality, but also involves hard work and confronting difficult questions (O'Donovan, 2007). During collaborative processes, the collaborative team is the fundamental building block of the organization (DuFour & Eaker, 2008). Collaboration is achieved in small steps and is emphasized by the commitment of all teachers and all students will learn from it (O'Donovan, 2007).

During effective collaboration processes, group members develop a shared belief that they are responsible for shaping shared goals and values. The culture of cooperation does not originate from the beliefs and practices that teachers hold about the curriculum and different instructions; instead, it comes from teachers' social and moral beliefs about the relationships between individuals and the communities in which they live (Lavie, 2006). When all teachers are involved in the collaborative process and learn together, then the entire team will produce more substantial results in each subject in which members are committed to helping all students learn. (DuFour, DuFour, Eaker, & Karnhanek 2010).

According to Johnson (2006), there is much evidence that interdependent work among teachers can contribute to increased student achievement and teacher job satisfaction. Johnson believed that teachers value the opportunity to work together with their colleagues. To collaborate effectively with colleagues, teachers need to know where they are going academically with students and the specific objectives they wish to achieve. (Hall & Simeral, 2008).

### **Discussions about the Importance and Benefits of Cooperation**

Teaching can be tiring and emotionally draining. Everyone tries to find a balance between work and family life, but regardless of this, stress is part of work and colleagues, so other teachers are invaluable sources of support and relief of this stress. When teachers support each other, they develop relationships based on trust and empathy. These regular interactions are important in forming lasting professional

relationships. When teachers feel supported, they are better able to provide the same support to their students<sup>4</sup>.

Teacher collaboration can open doors for personal and professional development and can benefit both students and teachers.

The results of a study conducted with students on the subject of mathematics in Nigeria, revealed that a group of teachers (who worked together) had a significant effect on student achievement in mathematics. Multiple classification analysis showed that students whose teacher engaged in collaborative activities performed better than those taught by a teacher who did not engage in collaboration (Saka, 2021).

But the benefits that come from the cooperation of teachers are not only related to the results of students, which is a direct factor in school performance, but they are also related to other elements that indirectly also affect a good or not good performance. As such we can mention the storm of creative ideas during which different ideas are generated while individual differences are accepted and respected. It also encourages teachers to share their ideas, as well as to expand their knowledge by drawing on the ideas and knowledge of other teachers. Teachers can come up with unique ideas for their lesson plans that they may have never thought of before, or hesitated to implement (Bouchrika, 2022).

Cooperation can help teachers and for professional growth. Thus, teachers, especially young ones, can get the help of other teachers who have mastered the skills they are trying to build at this moment. They can observe each other and inform each other how they can improve their work. Interaction, dialogue, feedback and exchange of ideas help teachers to create good working relationships among themselves. Teachers become more effective when they work with others to improve their lesson plans, which can lead to more engaging classroom lessons (Bouchrika, 2022).

Important benefits for teachers such as a greater sense of belonging, increased confidence and a sense of efficacy come as a result of collaborative lesson planning and discussion of ways to improve future lessons. (Bruce et al., 2011).

In particular, cooperating teachers are more likely to talk with their colleagues about classroom problems, teaching strategies, or the curriculum. Consequently, teachers gain knowledge from each other (Reeves, 2003).

Teacher collaboration has been a common element for years in one or more of these three models: shared time, professional learning communities, and critical peer groups. Each model is different, but they share common characteristics: 1) advance teacher learning, 2) address specific issues, 3) foster collegiality, 4) reduce teacher isolation, and 5) lead teachers to greater knowledge about teaching and learning. The

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<sup>4</sup> <https://degree.astate.edu/articles/k-12-education/importance-of-teacher-collaboration.aspx>

overarching element, and perhaps the most important common element, is the goal of improving student learning (AMLE, Oct, 2014).

### **Analysis of Effective Strategies and Key Points of Cooperation**

*Planning cooperation time as a professional job for achieving goals by focusing on real and achievable tasks.* Surprisingly, theoretical studies on teacher collaboration have often reported time as an important determinant. Lack of time is cited as an important challenge for teachers regarding their collaboration with colleagues (Promethean, 2021). If we want to encourage collaboration between staff members and, in the same way, give pedagogy its rightful place at the heart of this process, it is imperative that sufficient time is allocated for collaboration between teachers within regular school hours (Eaker et al., 2004).

Research by Louis and Marks (2011) found, "Teachers form more stable and productive communities in schools where they are more involved in educational decision-making, and, in particular, schools that schedule regular blocks of time for teachers to meet and planned courses and assignments together". Teachers who were involved in collaborative processes reported that they had great improvements in the joint creation of teaching materials, in joint assessments as well as in the joint examination of student work (AMLE, March, 2014). Such tasks allow teachers to pool their knowledge and experiences and adjust their practice in real time.

One of the ways to be an effective teacher is to schedule shared work time with other teachers. This gives you the opportunity to meet and collaborate with other teachers on teaching and decision-making in the classroom. This involves groups of teachers reflecting on teaching methods, modifying them, and implementing changes in their classrooms to help students learn better (Bouchrika, 2022). Different school administrators plan shared time in different ways. One method is to schedule a time together once a week. Others cut classes on certain days to give teachers time to meet or set aside full days for collaborative work. Whichever way schools may choose to implement it, teacher collaboration can achieve the desired results if it is done with well-defined goals. For example, organizing cooperating teachers who share teaching experiences, teachers who share common planning time, and/or teachers who have identified instructional skills for improvement can potentially produce collaborative partnerships that engage teachers in effective and beneficial professional development (Carrol, Patrick & Goldring, 2021).

*Creating a vision and truly shared goals.* The level of belonging that teachers feel in the process affects how much they actually invest in collaborative work. A shared vision and goals can lead to that sense of belonging. For example, identify your team's shared vision for caring for students and their learning, set goals related to that vision, discuss how teamwork can help achieve those goals, and monitor progress frequently. A strong connection between the team's work and vision can help individuals see the goal and be part of the process (AMLE, Oct, 2014).

*Gathering together teachers of different profiles and fields to change teaching practices.* Most teachers in all subject areas report changes, but science and social studies teachers were more likely to report changes in how they teach than in what they teach, suggesting that not everyone will be perfect teachers, but will be more conscious and strategic about the development of the lesson within their field (AMLE, March, 2014).

*Use discussion and dialogue.* Whether teachers are integrating curriculum, analyzing data, or studying a new practice, teams must understand the roles and differences between dialogue and discussion. They are equally important to the group process. Discussion moves the conversation forward. In discussion, individuals express their opinions in order to create consensus or make decisions. The purpose of the dialogue is the exchange and expansion of knowledge. Dialogue invites multiple perspectives, values the exploration of biases and assumptions, questions the status quo, and generates new ways of knowing and being. Dialogue requires active listening, a willingness to state beliefs, an ability to withstand the tension of ambiguity, and faith in the transformative potential of the process (AMLE, Oct, 2014).

*Emotional support for teachers.* The pandemic has disrupted the emotional well-being of teachers. A survey conducted by the Yale Centre for Emotional Intelligence found that stressful emotions felt by teachers were associated with fear of contacting Covid-19 and balancing the needs of their family while working full-time from home (Bouchrika, 2022). However, even with her passing, the teacher is a human being who faces the problems of life at work and in the family. To effectively support teachers' well-being, schools can create an emotional intelligence scorecard. This includes identifying how teachers want to feel as staff members. They can then share concrete ideas on how to support each other in achieving that feeling. This can be done through supervision sessions. In Albania, supervision has a negative connotation as it is seen as a way of controlling the work of teachers and leaders, while supervision itself has to do with supporting the staff so that they don't go into a "burn out" state. The most pressing challenges for teacher collaboration today are stressors related to mental and physical health.

From an observational point of view, the teaching team seems to work cooperatively and has a relationship of mutual trust and respect. In general, presenters report very positive emotional experiences during the collaboration process. Teachers talk about feeling supported by team members during difficult or stressful times and that the collaborative environment also offers opportunities to reduce frustration (Smart, 2012).

*Develop a sense of community.* At its core, collaboration is relational. Getting to know colleagues, understanding their passions, and taking the time to connect on a personal level can help members gain mutual respect. Establishing shared values and commitments can unify the group and provide purpose for their collective work

(AMLE, Oct, 2014). Other ways to develop community include creating traditions, celebrating accomplishments, and recognizing individual contributions.

*Identify group norms.* Collaboration can be uncomfortable or stressful at times. When we are transparent about our work and our beliefs, our colleagues can see our limitations as well as our strengths, putting us in a position of vulnerability. Sharing and trusting with colleagues takes courage and humility. A climate of trust can help create the safe environment that is necessary for open communication (AMLE, Oct, 2014).

*Sharing of best practices in teaching.* Teachers can help their colleagues improve by sharing their experiences. This builds trust in the teacher who shares his experience and improves knowledge in others (Bouchrika, 2022). Sharing positive practices involves several steps:

*Define the problem.* Identify the problem, its causes, and define what success looks like. Success should be defined in attitudes or behaviors that are measurable.

*Determine who should share their expertise.* Identify teachers in your school who exhibit behaviors or achievements related to the outcome you desire. The basis for their identification should also be the use of clear, data-driven methods.

*Discover best practices.* Identify strategies that successful teachers are using in their classrooms. Video recordings of classroom sessions where these instructional strategies are used can be useful in analyzing the success of such strategies.

*Design the intervention program.* Schools should decide on a methodology that allows them to replicate successful practices in their classrooms. For example, they can also record videos of their teaching sessions to identify strengths, areas for improvement, and other ways to adapt instruction in their classrooms.

*Evaluate the effectiveness of the intervention.* The progress of the learning intervention should be measured with analytical tools that collect quantitative and qualitative data.

*Share the results.* Schools should make the intervention program accessible to a wide audience so that it can be replicated. For teacher instruction videos, schools can create an archive of materials so that they are accessible to those who want to improve their teaching strategies.

*Acknowledging the authorship of changes by providing space and support for teachers to design and update materials in accordance with their students to meet the goals.* Teachers are using a wide range of resources. The transition to new standards along with digitization has led to an explosion of sharing and adapting learning materials, some on education-specific platforms, but much more through the use of wider technologies such as YouTube, Pinterest and Twitter. (AMLE, March, 2014). Teachers can identify and create effective teaching materials tailored to their students. School

leaders can also give autonomy to networks of teachers to create materials they deem most valuable and relevant to their students, but of course this must be accompanied by policy changes and guidelines for implementation.

*Working through conflict.* Dialogue can also lead to conflict. It may be helpful for the team to develop a conflict management plan and monitor it. Teams can help manage conflict by providing time, space and support for individuals as they work through their emotions. Individuals should also monitor their emotions and practice self-care.

Using professional judgment, the team can determine when to explore the roots of the conflict and when to provide space for reflection and calm. Although sometimes unpleasant, conflict often provides opportunities for growth (AMLE, Oct, 2014).

The National Commission on Teaching and America's Future (NCTAF) report "Teamwork for 21st Century Teaching and Learning: What Research and Practice Reveal about Professional Learning," published in 2010, provides a synthesis of five research studies. Studies show that when teachers are given the tools and time to collaborate, they become inclusive learners; Educational practices improve and eventually they become capable of improving student success far beyond what any of them can achieve alone. This report highlights 6 key points for success (NCTAF, 2010):

*Shared values and goals.* Team members have a shared vision of students' learning needs and a clear understanding of how their collective teaching experience can be orchestrated to meet these needs. They identify learning challenges that the team can focus on to improve student success.

*Collective Responsibility.* Team members share responsibilities according to their experience, knowledge and skills. They hold each other accountable for their success and are collectively responsible for the improvement of each student supervised by the team.

*Meaningful (authentic) reviews.* Team members hold themselves professionally accountable for student success using assessments and data that give them real-time feedback on learning and teaching effectiveness. These assessments add value and are not necessarily formal assessments.

*Self-directed reflection.* Highly effective teams create a feedback loop on goal setting, planning, standards, and assessments that are oriented toward student learning needs and consistent with teachers' professional development needs.

*A reliable environment.* If a team is given the time, space, resources and direction for their teamwork, they can turn a mediocre school into a successful learning institution. Space and time are "sacred"; they are not used for anything else. Even the best teachers cannot have much impact working alone.

Strong and committed leadership. Highly effective instructional teams are supported by principals who create a climate of openness and trust, a climate that encourages team members to make decisions to improve instructional effectiveness that are directly related to student needs. This support must be balanced by positive and appropriate pressure aimed at continuous improvement of the school's performance, according to the learning needs of the students.

The Georgia Partnership for Excellence in Education (2010) reported that as the demand for teacher accountability for student achievement increases, collegial support and collaboration from educators is needed. Great damage can be done to the overall school culture if leaders develop collaborative teams that are not genuine or authentic (DuFour & Marzano, 2011).

Leaders can strengthen relationships in their schools by inviting teachers to participate in the decisions that concern them most. The three ways to involve them are: involvement in recruitment and giving the responsibility to guide and orient new teachers; individual and mutual training, through recognition by the teachers of the work, practice and difficulties of the leader and vice versa by the leader of the teacher; communication, principals are often physically distant from teachers, even when they are in the same room, which can cause unnecessary friction or misunderstandings. Increasing opportunities for functional communication fosters teacher expertise by opening stronger interpersonal connections (Plotinsky, 2022).

### **Conclusion and Recommendation**

School leaders - vice-principals and teachers - must work together and commit to a culture of collaboration. They should dedicate time to the organizational model within the school day. DuFour (2011) suggested that collaborative team members must realize that they cannot accomplish their goal of all students learning unless they work together collaboratively.

To help their teachers become involved in a more open professional community, principals should facilitate collaborative activities among their teaching staff by generating a gradual awareness of their many purposes and benefits. These positive actions will effectively shape the beliefs and perceptions of their teachers.

Principals should also carefully consider the issue of teacher workload. Finally, future actions should include creating more opportunities for discussion, which will lead to greater collaboration and providing time allocation within regular school hours for teachers who wish to increase their level of cooperation.

DuFour (2011) stated that the cooperation of teachers by invitation does not work. It is the well-planned implementation of leadership to successfully influence the collaborative process and progress.



Student performance will improve only when the teaching staff works as a team and abandons its traditional norms of isolation and individualism (Leonard & Leonard, 2003).

The investment in time to do this kind of practical, applied work should be accompanied by redesigned instruction that is more coherent and structurally sound (AMLE, March, 2014). McHenry (2009), in her study on the relationship between leadership behaviors and teacher collaboration, concluded that "although teachers are the key players in the act of collaboration, school leaders have an important responsibility in creating in which this type of cooperation to be successful".

Recognition of diversity in teachers' learning goals by school leaders and other facilitators of teacher learning can help motivate teachers to continuously develop their teaching practice (Louws, Meirink, van Veen, & van Driel, 2018). One way to arouse teachers' interest is to start the meetings with an orientation phase in which the central concept is explored collaboratively, without imposing any demand for immediate change on the teachers.

It is necessary to educate teachers on how to collaborate with colleagues and how this collaboration can contribute to their teaching (Sjoer & Meirink 2016).

If principals lead collaborative efforts and support their teachers through the processes, they will not only become better school leaders, but also foster a new focus on the learning environment. Thus, a successful cooperative school can only exist if its leader is committed to cooperation and cooperative values.

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## Teaching through Alternative Methodology

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### Abstract

The rapid development of information and communication technology has a significant impact in the teaching process. This happens because of the existence of the advantages that this sphere entails in the pedagogical practices and methods. As such, they are briefly brought to us : easy access to information; increasing interest in learning; more ability to embed it into memory and preserved in the knowledge gained as a result of the inclusion of visual memory improvement; interactive teaching as well as easy exchange of knowledge, etc. With the aim of identifying the advantages that the technology incorporates in the teaching process of methodology, this paper aims to highlight the role of technology in the teaching and learning process of English , the achievement of the student in the learning objectives and how the technology of information and communication is intertwined in education. The study's research is about determining what impact technology has in the teaching process, meanwhile the supporting questions raise questions about the advantages of teaching technology as well as the impact on the level of learning of Albanian students. Study hypotheses, which are expected to be proven to be sustainable or not, are: Technology brings quality-enhancing teaching of English; efficient use of ICT enhances student learning. The study methodology is based on the combination of theoretical and empirical analysis, according to the case study.

**Keywords:** Teaching process, technology, information and communication technology, learning, education, multimedia, skills.

### Research paper vindication

Information technology and communication as a case study in the education nowadays. The processes of political, economical and social globalization implicit new initiatives which aim together societies in a smaller world and solve problems and connect easier. The school is considered as a social institution so to help new generations better in order to develop psychophysical overviews for the individual as in important actor in the society. The society of the future never stops and never gets satisfied with the present but it is always in search of the best aiming to make the

school a place where students can get wisdom but at the same time education. The future of the humankind is more over depending on the development of the education culture, science and technology from which all the contemporary societies make positive changes for a better future in educating generations. Nowadays we randomly listen about new concepts such as technology, competences, strategies, new lesson plan, innovation but the problem is that teachers are not finding the right way how to adopt these concepts in the classroom. The classroom is considered as a sacred place but also an important mean of helping individuals to face every life existing dilemmas which is considered one of the most problematic situation in education nowadays is that teachers do not know enough the functions and the importance of ICT in the teaching and learning process especially in the pedagogical aspect. The changes that are happening in education make us the teachers, to have a different view of the interior reorganization of the lesson structure but also teachers are always aware of the fact that these changes affect the exterior structure of the education considering the individual's behavior in education activities. This means "every change in education before and after being planned, means an essential study of the existing situation and the factors which limit a specific change". (Osmani 2010) Studying the situation this is a condition for a successful change in order to make a better system of education and also helping individuals to be not only professionals. The inclusion of ICT in teaching and learning process is a very important step especially on education reform system. This inclusion means not only exactness but also preparations by professionals so this innovative issue may be successful. The innovative concepts in education are introduces the last ten years but they were not well-oriented so to swipe up from the old system of education to improve teaching tools, to enhance new methodology, to use contemporary strategies in order to know better the interest of the students. It is very important to know the interest of the students in order to plan, organize and succeed in the teaching process. The inclusion of ICT in the Albanian context is considered as a positive phenomenon from the experts teachers, students, parents but it is existing a serious problem in proving that the student knowledge are more stable and as a result of this the performance of the students should be more satisfied. At the same time, there is a serious problem by the part of the teacher to adapt ICT in teaching process. There are some difficulties in adapting ICT for the different reasons. Teachers should find and get improved in finding the right path so to include means of ICT to introduce a mirror of this situation in Albania and to prove all the above issues, this scientific study based on hypothesis, ICT in teaching influence that the knowledge taken in school are more stable and facilitate the work of the teachers. For a school to be contemporary it is necessary to find new approaches in teaching, by starting from the methods, textbooks, trainings for the teachers so to adopt the ICT in the learning process. The main objective is to advance ICT and include it in today's education: ICT nowadays has given a new dimension to the teaching and learning process of the foreign languages. The new generation of the students are undergoing with their will to this new era of education.

This is seen also as a force giving methodology by the Ministry of Education but not only. At the same time teachers are finding difficulties in perception this new element in the teaching process, despite the fact that the students welcome ICT with such a big pleasure. This research also enforces the use of ICT especially in the foreign languages classes. We will treat the integration of ICT and the professionalism of the teachers using this last concept, but at the same time giving theoretical, methodological and institutional aspects of interactive teaching and learning. The adaption and use of ICT in the learning and teaching process in the high schools in Elbasan. There is no doubt that there are many difficulties that the teachers are facing in using ICT in the classrooms, starting from the missing of the infrastructure, lack internet connections, the non professional teachers, and at the same time the judgment that the mentality enhances.

Many of the professionals, are of the opinion that the main objective of ICT is to adopt new interactive techniques and strategies at schools which reinforce critical thinking, motivate and easily helps the process of learning a second foreign language .But, in the Albanian context these innovative practices don't have the right importance and are given an easy shot to make it clear.

Theories supporting this research thesis:

Some of the authors have given their professional overview and their theories in ICT integration and use in the classroom , by forcing the idea that the use and integration of ICT means not only to put them in the class and make a new structural lesson plan(Bray,1999:14), and to integrate it twice a week , and not only to use it by ICT means(Dockstader,1999:73) and to fasten this process with the ICT integration, (Bailey, 1998:57), but it very important to know how to adopt them in the right manner sot to have a successful teaching and learning process.(bailey, 1998:62). To my opinion, ICT must be in function of the learning process, but we should find the most professional clothe of the ICT usage and integration.

Some of the authors are of the thought that the ICT integration is a didactical means of teaching, concerning the interactive and constructivist attitude. According to some of the authors Larose and Lafrance "The teachers support a constructivist and a socio-constructivist attitude , which means that if teachers know how to use ICT means and learning how to transmit them to the students in class, everything will be successful and we will have a better contemporary system of teaching and learning a foreign language process"(Larose F; Grenon V and Lafrance S, 2002:27) Educational experts consider learning as an active process that leads to knowledge acquisition, which is long-term and sustainable, measurable and specific to behavioral change (OECD, 2007). The primary function of learning is to encourage individuals to develop skills to solve a problem, as well as to sharpen reasoning as a critical and creative thinker. Learning also helps to develop an individual's self-awareness and awareness of his or

her environment. The purpose of the teaching process by ICT is to make learning possible. However, while the purpose of the

There are many theories aimed at supporting the ICT learning and teaching process. Thus, for example, Paivios' theory on dual coding (established in 1986) states that visual and image codes that represent information are used to organize incoming information and to convert them in which knowledge can be taken, stored data, and retrieved for later use. The emphasis on the importance of memory has evolved into broad imaging applications, aimed at accelerating the process of acquiring knowledge. A foreign language has always been involved in this process, but it was explicitly included as an educational partner when images began systematically to take shape as a picture. However, memory remains a decisive actor, because it is the basis of all knowledge and thoughts. The importance of memory is argued and dealt with more widely, because learning and memory are at the core of educational objectives. In particular, an important element for the dual coding theory and its applications are useful effects in recalling concreteness and images (Paivio, 2006, chapter 4): Learning process means a good state of mind and memory is a very important part in fixing the new information and to achieve this one of the best ways in by concrete experiences and practical tools.. Concerning concreteness, memory performance generally grows uniformly from abstract words (eg. truth, justice etc.), with concrete words (eg. chair, man), for objects (or their images). In the case of language, the effect of concreteness occurs with materials ranging in length from words to sentences, to long passages, to concrete memory, exceeding the abstract memory work with an average ratio of 2: 1. The advantage of concreteness is even more striking in the tasks related to the memory, in which the behavior in the mind of the response elements is caused by the concrete words of stimulation or the pictures. (Paivio A., 2006)

Severin's theory (1967) emphasizes that learning has grown as the number of available stimuli has increased (Severin, W. J. & Tankard, J. W., 2000). The incentives supplied through different channels should be relevant to each other; otherwise it would lead to a decline rather than an increase in learning and knowledge consolidation (Kaur S., Rose HJ, Lazar R., Liang K. & Metherate R., 2005). In 1974, scholars Baddeley and Hitch, in their quest to describe an accurate pattern of short-term memory, laid the foundations of active memory theory. This theory suggested a model consisting of three main components: the central executive, the phonological sketch, and the visual space designer (Baddeley A. & Hitch G., 1974).

In 2000, in the studies on active memory theory, Baddeley added a fourth component of the previous model: episodic buffer (Baddeley, 2000). Concretely, today the components of the model of active memory theory, as presented in the scheme of this model, are :a) the central executive, which acts as a supervisory system, and controls the flow of information from and toward its subordinate systems, which are short-term custodians dedicated to a content domain, such as, for example, verbal and visual



spatial ;b) Phonological illumination, related to language articulation, preserves the verbal content of vocal and sub vocal repetitions; c) Visual space plotter serves for visual space data, which consists of visual memory; d) episodic buffer, subordinate subsystem, which by its own name determines, supposed to hold integrated episodes or shreds in a multidimensional code. By doing so, this element / component act as a buffers, not only among active memory components, but also connects active memory with perceptions and long-lasting memory. (Baddeley A., 2012)

Sweller's theory of cognitive load (1988) refers to the total amount of mental effort used in active memory within the workload of active memory work while solving problems, thinking and reasoning (including perception, memory, language, etc.). Sweller argued that teaching designs can be used to reduce cognitive load among students (Sweller, 1988). The theory of cognitive load differentiates the cognitive burden into three types: perceived, foreign, and closely related specifically :a) Conjunctive internal load, perceived, is the effort associated with a particular subject ;b) Foreign Cognitive Charge refers to how information or tasks are presented to a student ;c) Conjecturally related load refers to the work carried out in the creation of a permanent scheme or permanent preservation sector. (Kaur et al.,2005).

Hypothesis and research questions.

**H 1: ICT helps and facilitates the teaching and learning process of English language!**

**H 2: Teachers of English need supports and qualification in order to be professional in integrating ICT in the process of teaching English.**

*Research questions that support this study are:*

Which is the situation of the physical classes concerning the ICT means?

If this infrastructure of the classrooms is satisfying, can teachers make them functional Are the teachers of English enabled to use the means of ICT and do they know how to adopt and integrate them in the English teaching processes?

How do the teachers feel about the integration of the technology in education'?

Are the teacher trained enough to use the ICT in the classroom?

Does ICT facilitate the learning process of the English language?

Does Albania have the proper infrastructure to use ICT?

The problematic clarification of the topic.

This ICT introduction in the classroom and its thematic aspect, are innovative issues through which this study will improve and enhance , motivates and stimulates teachers to respect the past situation in Albanian education but their main objective is to make a better over view in enriching teaching with techniques methods and

shapes designing new teaching results, this means enrollment of the learning process. This study is concentrated in the integration and usage of new ICT techniques of teaching and learning foreign languages, English in this case, seen in some dimensions in the Albanian context. English teachers face many difficulties in adopting new means of technology. The science and new rules are coming faster than thought. And this situation is not as easy as for the teachers to be competent in practicing all the teaching techniques based on innovation. But studies all over the world on this field have shown that the socio-cultural and the economic-political context influence a lot in the integration of ICT in the teaching and learning a foreign language. But in our context, in Albania the integration of innovative means of teaching and learning a new foreign language has problematic issues. Some of the problems are: a. the lack of the teachers' trainings, b. the innovative equipments, c. the scale of using ICT in the classrooms in the process of teaching and learning.

These are serious problems concerning the usage of ICT in Albanian classes, and for the above problems, there is a deep study of the actual situation in the classes and also it was needed a research study, based on interviews and experiments. It was very important to get a clear mirror of the scale of the acknowledgements by the part of teachers and students and to extinguish the problematic barriers which lack the process of using ICT. From what was seen in general and in specific situation was that the ICT usage and terminology was seen only in theory but in practice there were things unclear to them. What was of a great importance was to know the disposal of the teachers to accept the new methods and techniques so to get involved in the alternative methodology of teaching. But what was of the biggest interest was the fact that they were not ready to use these new ICT tools because of the mentality existing in Albanian system of education. To this point what was the strongest point of the study was to discover how much and how many times ICT tools used were.

The term "*information technology and communication*" it is used to include a series of services and applications referring to some tools which function to enhance and facilitate a specific process through webs and telecommunication. Referring to Gerbault (2002:13) ICT is referred as "a unit of the most development technologies to treat and modify the information in a synchronically way through voice, figure, or animated images and text. In a world divided by clashes of cultures and beliefs, the potential of the new media for fostering intercultural understanding and exchange is enormous. In the history of mankind, access to information and knowledge has never been so straightforward at a local, regional, national, or global level. Judicious deployment of ICTs can encourage and sustain cultural and linguistic diversity in individuals and in society in general. Facilitating access to other cultures and languages is the chief goal of the language teaching profession, and using ICT resources effectively in their teaching represents one of the chief challenges facing language teachers today. In their contribution to this study (Modeling a Field-Based Internet Resource for Modern Foreign Language Learning: the Case of RussNet), Dan

E. Davidson and Maria D. Lekic demonstrate the potential of ICT-driven language learning, highlighting the flexibility of the media available.

According to Chris Abbott (1998;197) the ICT is considered as a “ set of numerical technologies , which are based on the usage of the computer with the only objective , so to spread the information and to maximize the effect and impact of the communication” There is also an Albanian contribution on the “standard of the ICT teachers standards which in fact clarify the usage of these in the system of education in Albania. ICT is considered as the set of the electronic devices to collect, work with and also to represent the information given to the users so to facilitate their work .

As far as we see and read about the ICT we come to the conclusion that this is a set of electronic devices and means to transmit the information wanted. ICT in education is used in order to manipulate and also to attract the attention of the students so to make a more interesting class, but at the same time it facilitates the work of the teacher not only to be a better performer in the class but also to help him / her to make and practice a contemporary methodology viewed from the didactical point of view.

Models of using ICT in the class.

The Moersch model (1995,2001-22) insists that there are seven levels of which a teacher should pass in order to integrate the ICT in the class .

Zero model, represents the non use of the ICT in the class for different reasons. This may happen for different reasons such as the non access of the internet or any other different problems.

The sensibilisation means the phase in which the teacher is in contact indirectly with the means of integration of ICT.

The exploration is the phase when the teacher uses ICT to search extra information in order to solve the problems in the lesson process.

The infusion is the phase where the teacher uses the ICT means in order to support the pedagogical activities, in order to reach the decision taking. For example the teacher may use the ICT means in order to illustrate any problematic issue in the class, for the students to get better the ideas in the class to connect the theory and the practice.

The integration means the use if the ICT means in order to identify the real problem solving connected to a real situation problem.

Expansion means that the teacher interconnects with the people outside the institution where he or she works in order to reach the pedagogical objectives.

Perfection. In this stage the teacher makes the student be the main protagonist of the lesson class. The student is the one who checks for the information he wants to use in the lesson. In the case of the English learning , the students decides what information

to search for. For eg. In the case of the Present Simple learning , the students in order to learn in better and faster, searches for a text, such as a fairy tale or a song text with lyrics in present simple. He is not obliged to learn it in the textbook during the class.

There exist another model which explains the phases of the ICT integration in the lesson class. This model takes the name from the person who invented it as useful to be known by the teachers in order to get accomplished with this integration. It is called the Morais model. This model includes two phases.

The first stage is called the “starting point”and it is divided in two other subphases “compatibility and the “ the practicum. In the first, the teacher should be very attentive in order to see what is the perfect strategy to use in order that the lesson is student-centered. The second one deals with the teacher, because he is the one who tries to use the ICT means for two reasons. The first is connected with the personal usage of ICT in order to adopt the method used in he class. The teacher also decides what to use in the class in order to reach the specific objectives. The second one it is on the teacher to decide what material to choose for the specific class and theme , and if it the right means for the class to be used.

By bringing these two models we come to the conclusion that the teacher who is motivated to use ICT in the English teaching process, should be very professional in following the right steps. This is what is lacked in our Albanian context in the system of education. Teachers are misleded and confused because they do not follow the steps needed. What teachers have to do is to start from the personal conscience to use ICT for “personal usage” and then to use some of these means by following the way of the “professional usage “ and to reach in the “professional usage” only in this manner , the teachers are going to be professional and didactical.

### **What are the methods of teaching?**

Teaching methods and techniques are standard procedures that teachers use in collaboration with students to present and develop materials and learning activities to achieve learning goals and objectives. Teaching methods are divided into two large groups: the methodology that teachers and learners have in mind. In the last decades of the last century, priority has been given to the skills that give priority to the student's activity. This trend has begun to be felt even in Albanian schools.

Methods centered on the teacher aim to provide information that will provide the basis for developing further thinking. This group includes: explanation, lecture, conversation, deploring, questioning. The student-centered approaches aim at meeting the learning goals and objectives by actively enabling the learner. These methods are divided into two subgroups: group work methods and research methods.

Because of the characteristics of the class group, some of the most successful methods and techniques are those that relate to group work. These techniques influence the student's higher activation in the learning process, changing attitudes and ideas.

These techniques increase the effectiveness of teaching, as learning outcomes are high. This subgroup includes discussion, debate. Research methods have as main characteristic, information exploration and conclusions drawn by students themselves. This subgroup includes: research project, survey, excursion. To use the methods successfully, the teacher should know well their characteristics, methodical progress, select them in accordance with the subject they develop and the student's particulars. One of them should not be overstated, but should be used in combination.

Learning methods are ways, ways, steps, and didactic processes that use the teacher's teachers in the process of teaching and learning abroad for the transmission and acquisition of knowledge, skills and habits. Historically, they have changed, been perfected and modernized in relation to the transformations of the society, with the intentions and interests that it has presented to the school at different times, as well as with the specific changes of the school itself, of various sciences: psychology, pedagogy and sciences the other. Teaching methods are conditioned by the content of the lesson, but also by the forms used in the organization of the learning process.

The teacher directs the work of the groups in such a way that they all become active and express their opinions. In order for the activity not to go out of control, the teacher should provide clear instructions for each step of the activity. Working in groups requires students to communicate, discuss, analyze ideas, develop their thoughts through conversation. Working with groups improves students' ability to think, creating opportunities to raise hypotheses, verify and analyze them.

Working in groups is organized in 3 stages.

Phase One: This is the "silent" phase, no pupil suggests to a friend what he should do. In this way, the respect for the companion's work, as well as the responsibility of each in front of the group's friends, is nurtured.

Second Phase: Students of each group chat together, make corrections, give arguments, and eventually decide on the final decision they post on the chart as their group work. During this phase, setting some rules is indispensable. Pupils should respect each other. They should listen carefully to the companion's arguments to provide convincing and compelling arguments. In working with groups, students feel the need for communication with courtesy, with no impunity and respect. In the sense that responsibility is solved by group members, relationships of optimism are created in the organization. In this way, the group turns into a miniature of an effective organization.

Third Stage: The affairs of the groups posted on the blackboard are subject to group review. The teacher chooses a student of any group to respond to the remarks of other groups. Students ask questions to other classmates. The climate of debate and exchange of arguments is more hot. In these two phases each student has the moral

responsibility for the proficiency representation of the work of the group he has participated.

Organizing group activities brings a variety of benefits to the student's teacher. The student is more likely to communicate with each other. Pupils are more focused on learning because each has its own task and responsibility, from which to determine and the outcome of the group. Pupils feel cheaper and safer than when asked before the whole class. Increases the amount of time each student has to speak. Working in groups helps the student to shy away from expressing thoughts. Students with difficulty feel better, they ask more freely about a friend than a teacher, cooperate with them, follow them with interest and feel less of their mistakes.

Working with groups is organized so that students interact with each other. Groups are formed with four to seven students, where they have the opportunity to exchange views and express ideas, communicate freely and discuss. Groups can also be formed according to the preferences of the audience. Groups are usually heterogeneous, so they have learned.

The teacher must adapt the method that is more efficient for one lesson. Each of the methods has its own benefits and shortcomings. Of course the more knowledge the teacher has, the more skilled will be to make decisions about any situation that is created in the classroom.

These sampling actors helped me a lot to do my research, and at the beginning there are given all the characteristics of the subjects taken in the research, a study which was held during 2015-2017. Then every result is given in tables and graphics by respective comment.

In the city of Elbasan there 16 high schools, and in every school it is taught English, even in rural areas there are 18 high schools, and English is taught in all of them. In some schools , English is taught as a first foreign language , while in other it is taught as a second foreign languages.

School	Students of English in the class X	Students of English in the class XI	Students of English class XII	Teachers of English	Participants in the interview	Active participants
A	140	109	87	2	23	100
B	111	98	74	2	14	68
C	130	88	91	2	13	88
D	145	121	116	2	23	44

Table 1. The characteristics of the first four schools.

All the participants of the first four schools were very curious to participate in the interviews which held not more than ten minutes per each student. We do not exclude the fact that they were embarrassed in front of the interviewer but with the passing of the seconds they became more active and eager to give real answers to the respective questions.

What was worthy to be mentioned, are the schools characteristic connected to the ICT.

<b>School</b>	<b>Labs</b>	<b>Computers in the lab</b>	<b>Internet connection</b>	<b>Other devices/ means of ICT</b>
<b>A</b>	2	22	YES	Video-projector,CDs;DVDs,TV etc
<b>B</b>	1	23	YES	Video-projector,CDs;DVDs,TV etc
<b>C</b>	1	16	YES	Video-projector,CDs;DVDs,TV etc
<b>D</b>	2	14	YES	Video-projector,CDs;DVDs,TV etc

*Tab.2. Schools situation concerning ICT.*

As far as these schools are considered as experimental schools, and four of the best schools in the city, where also the government funds every year to improve their performances, even the real infrastructure is very good, and in excellent conditions.

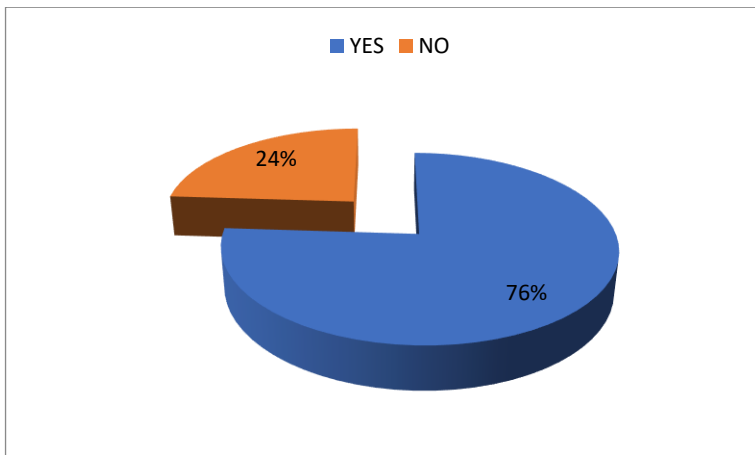
Teachers of English	Number of qualifications
T1	2
T2	3
T3	2
T4	No

T5	2
T6	3
T7	1
T8	No

*Tab.4. Concerning the qualification of the teachers.*

Students poll results

**Question no. 5: Do you know about ICT? YES/NO**

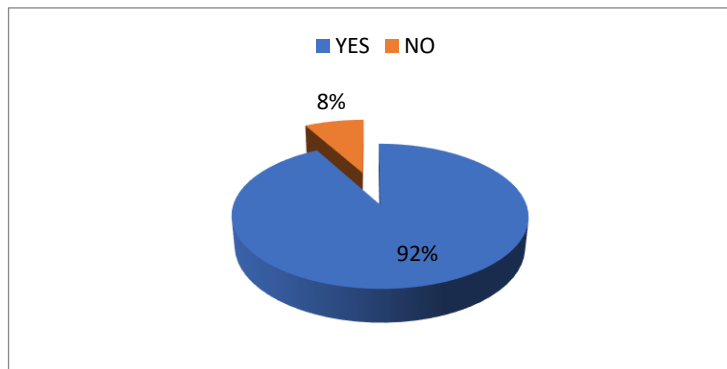


*Graphic 1. The students acknowledgement of ICT*

This is a very important starting point to the research. The recognition of the term ICT and everything includes is crucial. Even in the didactic terms, the process of understanding the unknown has a very important effect on what is going to be learnt. According to these questions, the majority of the students were aware of this term, because their daily life nowadays is surrounded from the computer and what it contains. Despite the main objective they use the ICT means, which is in fact to use the social media webs (*facebook, instagram, twitter, snapchats*), they also used the means of ICT in order to send emails to the teachers and to build a communicative area with mates and the teachers. 76% of the students are a very high percentage in fact, which is satisfying in order that the class functions. The other part which is 24% had never heard of ICT, even though they were in touch with its means every day.



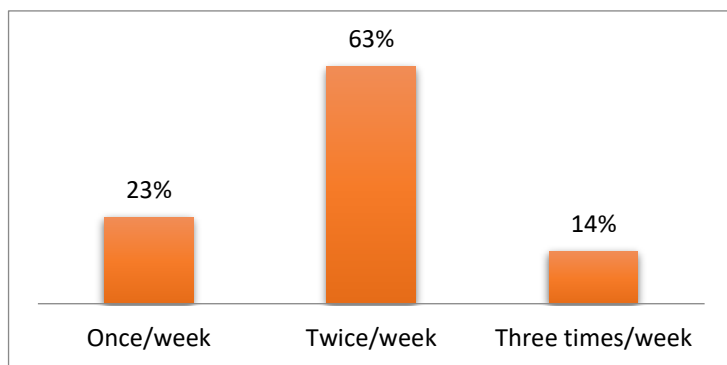
**Question no. 6:** *Do you use computers in your school? YES/NO*



*Graphic.2. The use in percentage of ICT from the students.*

This answer consists in knowing if the students use the computers or not. It is not awkward that there are still students who cannot use the computers. And in fact 8% of the students taken in the interview didn't know how to command the mouse and to navigate in the computer. They added that some of them had never used the computer because they didn't know it or they were not interested to. But, the majority of the students as shown in percentage, 92% of them were good users. We cannot pretend to use ICT if they don't know to use a computer, and how could they navigate and use it for pedagogical aims.

**Question no. 7:** *How many times do you use them? (times/week)*

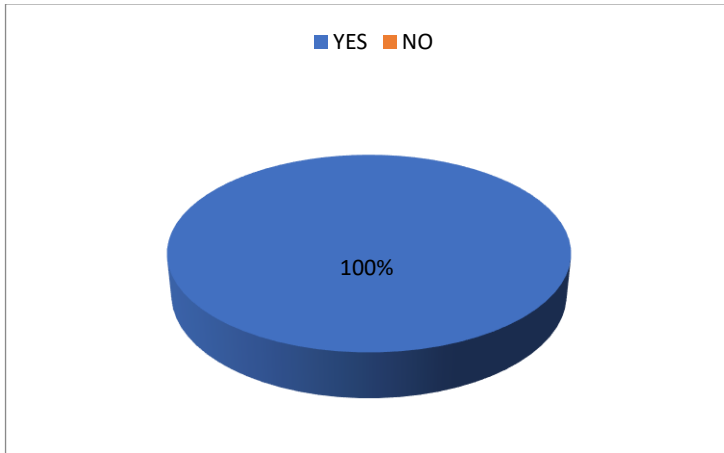


*Graphic 3. The frequency of usage of ICT.*

As far as in the curricula of the high schools, English classes are developed three times a week, my interest was to discover the frequency of the usage per week. This question in fact was very curious because that depended on the level of the class. 23% of the students taken in the interview answered that they were included in lessons based on ICT once a week, especially in the listening section. The other 63% were included in individual work at home to enlarge the information through short stories,

movies and songs on the radio in order to practice home their skills in English. This was very interesting because it shows interest by the students. The other 14% used in three times a week so to make the homework during the *Google Classroom*. One of the teachers used the new innovative class when the students were home, as an extra homework so to be in contact with the language.

**Question no. 8:** *Do you have internet access?*



*Graphic 4. The internet access in school.*

The internet access in the school was always in connection and with a good speed. This is due to the latest politics made in education, for the administrative cohesion of the school and the performance of the head of the school in order to report everything happened in the school. But also, due to the necessity that the schools had in having labs, the internet was always present. We can't take in consideration the fact that once in the time, it was a disconnection for some minutes, but in general the students were satisfied.

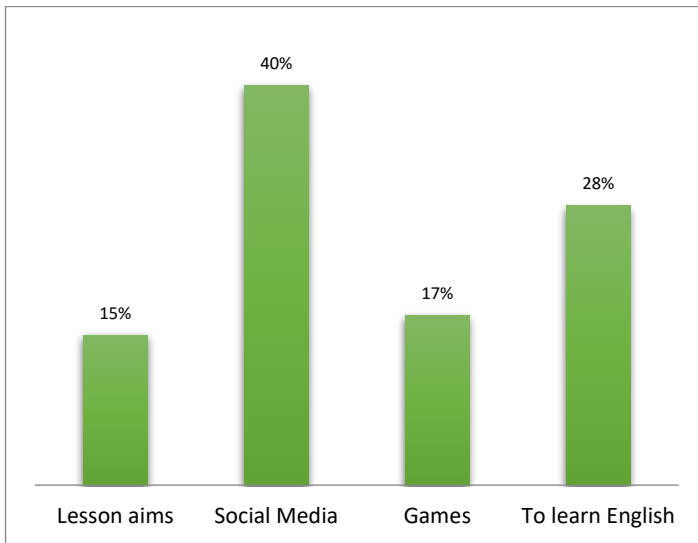
**Question no. 9:** *For what reason do you use the computers?*

*Lesson aims*

*Social Media*

*Games*

*To learn English*



*Graphic 5. Reasons of using ICT in the class*

The usage of the computers by the students was taken in general in order to see in what extend they used the computers in the labs and at home. 15% of the students told that used the computers in order to find the extra information for every project works, essay or any other kind of homework. Even when they wanted to learn more about the daily topic taken they navigate and selected a movie, a song, a short story, a documentary. 40% of them, proved the daily problematic issues that teachers and parents have recently; the time that students spend on the internet and in front of the computers or in the other cloned device, laptop (lap ---top, made for comfort, a device the same as the computer which could be handled on the top of the lap, for comfort). This group of people used these in order to chat or to review in their accounts created on the internet for massive communication objectives. Games was another aim of usage, the majority of the students using computers for gaming were boys. They also told that they could spend hours in gaming. The most satisfying answers belonged to the main aim of this research: To learn English! With or without the assignment homework by the teachers, they individually used the computers by downloading programs in order to learn English. These students were aware of the fact that English is a language that they couldn't do without.

## **Conclusions**

In this chapter there are mirrored all the conclusion taken from the study in order to answer to the research question and to verify the hypothesis. During the research ICT has an important role in our system of education even the Albanian context lacks a lot of things. Teaching English nowadays in Albanian classes has been facilitated by the integration of ICT. The responsibility is held by the teachers of English. In this study

was highlighted the definition and the understanding of the ICT in education. In the literature review many author were consulted in order to explain the definition and the impact that ICT has in education. ICT is the set of different media used in order to spread the information. Some of the means used are the computer, video projector, CD, DVD, interactive board. At the same time it was discussed the impact that they have in the class for example: raise of motivation, interaction, critical thinking and successful output.

There were identified the factors affecting the didactics usage of ICT interfering in its performance such as personal, cognitive, institutional, pedagogical factors. There were many models presented in order to make the teachers be aware of the functions and positive effects of ICT integration. The first objective was to see the physical infrastructure of the actual situation of ICT in Albanian classes. In fact during this research what was seen is the absence of the computers and other means but not only the internet connection was slow. The internet access was missing in the majority of cases. These made the students to be not .motivated and the teachers too. The missing of the infrastructure and the lack of the internet access in school are the two biggest obstacles in affecting the integration of ICT in the class.

Secondly, in the literature review was seen that there are a limited number of researchers on this topic especially on the relation that ICT has with foreign languages, English in this case. Meanwhile the first thing to be seen was the disposal of the teachers to welcome the ICT. All the teachers should be aware of the fact that integrating this new era of education can facilitate their job by having positive results. On the other hand, it should be accepted that this process is difficult and still in progress affected by external stimuli such as cultural, psychological, didactics factors, making it complex.

Thirdly, in this research it was made a clear establishment of the role of the teacher as a result of the integration of ICT. On one hand, we should have a teacher who is prepared, trained, qualified and ready to adapt the changes because the role of the teacher in this aspect is very important. Teaching means science and art. It is science because the teacher transmits scientific information to the auditor but it is an art because of some features that an alternative teacher should possess. Teaching process through ICT as a part of contemporary methodology means that the role of the teacher is not only being a facilitator but also a connection means, good manager. In the traditional class the work is based on textbooks and blackboard while in alternative classes the teacher goes from the unit to the global and this means a virtual world within the class by using ICT mechanism but before doing this the duty of the teacher it to welcome the integration of ICT, get use do it, be qualified, become an expert and them put them in practice.

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## **New Approaches to Diagnosis and Management of Molar Incisor Hypomineralization. A Literature Review**

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### **Abstract**

**Introduction:** Molar Incisor Hypomineralisation (MIH) is a developmental disorder of dental enamel with a systemic origin that affects one to four permanent first molars associated with incisors involvement. The aim of this study is to bring to the attention of professionals this pathology, emphasizing at the same time the importance of early diagnosis and frequency of controls of the affected individuals, including updates on diagnosis criteria. **Methodology:** This a literature review helping the professionals with new research in this field. **Results:** The European Academy of Pediatric Dentistry has established the criteria for the evaluation of MIH updated in 2022, mostly involved in diagnosis and management. Many studies have shown that prevalence varies in different populations meanwhile have advanced in identifying possible etiological factors. **Conclusions:** This literature review related to MIH brings to the attention of professionals this pathology that requires a multidisciplinary intervention. Early diagnosis, identification, and awareness of dentists, and parents can influence its appearance and treatment options. Preventive therapy through remineralization can prevent massive post-eruptive enamel breakdown as well as other serious complications, with an important psycho-social impact on the child's life.

**Keywords:** molar incisor hypomineralisation, prevalence, etiology, diagnosis, clinical manifestation

### **Introduction**

Structural disorders of dental enamel are frequent pathologies encountered in permanent teeth. They can appear because of interference of external factors in the process of secretion or mineralization of enamel, during embryogenesis. In some cases, the causes are known, as in others, the factors that can cause such pathologies to have not yet been fully discovered. These disorders can vary in their appearance in

terms of the extent and number of affected teeth, the demarcation, and the color of the lesions. In the framework of structural lesions, hypomineralization of systemic origin of one to four first permanent molars, often associated with the affection of permanent incisors, has been defined as a special form, called Molar and Incisor Hypomineralization (MIH) (1), to increase attention to this pathology.

The aim of this study is to bring to the attention of professionals this pathology, emphasizing at the same time the importance of early diagnosis and frequency of controls of the affected individuals, including updates on diagnosis criteria.

**Methodology:** This a literature review helping the professionals with new research in this field.

**Discussions: Clinical appearance of MIH**

In the literature, there are described two forms of MIH: mild and severe form. In Table 1, are presented the clinical characteristics (signs and symptoms) of each severity level according to the criteria of EAPD 2010, updated in 2022 (20).

**Table 1. Description of severity level according to the EAPD criteria.**

Severity Level	Sign and Symptoms
Mild	Demarcated enamel opacities, without enamel breakdown. Induced sensitivity to external stimuli (e.g., air/water) but not brushing. Mild aesthetic concerns from incisor discoloration.
Severe	Demarcated opacities of the enamel with breakdowns and dental caries, Spontaneous and persistent hypersensitivity that affects the functioning, (e.g., from brushing, mastication), Strong aesthetic concerns with socio-psychological impact.

MIH is characterized by clearly demarcated opaque lesions, with shades ranging from white, to yellow and brown, mostly localized in the occlusal/incisal third, in mild forms of the pathology. Hypomineralized enamel is soft and porous. In severe forms, hypomineralization is followed by a rapid breakdown of the post-eruptive enamel, which leads to the exposure of the dentin and the subsequent creation of cavities with irregular margins. Dentin exposure leads to increased sensitivity (hypersensitivity) of MIH-affected teeth and at the same time makes them more prone to caries. Negre-Barber et al. (3) evidenced that MIH is considered a risk factor for dental caries, in populations with low levels of caries. Kosma et al. (4) studied the relationship between MIH and dental caries and showed that children with MIH have a higher DMFS index compared to children who are not affected by MIH. At the same time,

caries progression is much faster in first permanent molars with MIH due to more porous and less mineralized enamel (17), leading frequently to pulpal affection.

Another aspect that is pointed out by the literature is the asymmetry of the lesions as well as the degree of MIH involvement, which varies from one patient to another, but also in the same patient. The number of molars affected by MIH can vary from one to four, but if one of the molars is heavily affected by MIH then most likely the antagonist of the same arch is also affected. It seems that the greater the number of first molars affected by MIH, the higher the risk of affecting the superior incisors. Defects in the incisors are usually not associated with loss of tooth substance due to the absent masticatory forces. (5). However, not all patients show these types of disorders (opacities) in the permanent incisors. Koch et al, (6), report a prevalence of them of over 30% in some populations. He defects of the incisors are milder than those of the molars. Since masticatory forces on the opacities in incisors are absent, the enamel substance does not disintegrate after eruption.

However, treatment is often required for aesthetic reasons. He defects of the incisors are milder than those of the molars. Since masticatory forces on the opacities in incisors are absent, the enamel substance does not disintegrate after eruption.

### Diagnosis of MIH

For the clinical evaluation of susceptible teeth, it has been recommended to examine the 4 first permanent molars and the 8 permanent incisors, wet, after they have been cleaned. The indicated age for their examination is 8 years old because all first molars have erupted and so have most of the incisors (1). The evaluation criteria of these teeth for MIH are presence/absence of limited opacities, post-eruptive enamel fracture PEB, atypical fillings/restorations, and extractions as a result of MIH (7), updated by EAPD 2022 with the recommendation of adding the use of intraoral X-Rays (20) (Table 2):

**Table 2.** Criteria used for diagnosing MIH (Weerheijm et al 2001a) updated by EAPD 2022

Diagnostic feature	Description of the defect
Teeth involved	One to all four permanent first molars (FPM) with enamel hypomineralisation Simultaneously, the permanent incisors can be affected. At least one FPM has to be affected for a diagnosis of MIH. The more affected the molars, the more incisors involved and the more severe the defects. The defects may also be seen at the second primary molars, premolars, second permanent molars, and the tip of the canines

Demarcated opacities	Clearly demarcated opacities presented with an alteration in the translucency of the enamel. Variability in color, size, and shape White, creamy, or yellow to brownish color Only defects greater than 1 mm should be considered
Post-eruptive enamel breakdown	Severely affected enamel breaks down following tooth eruption, due to masticatory forces. Loss of the initially formed surface and variable degree of porosity of the remaining hypomineralised areas. The loss is often associated with a pre-existing demarcated opacity. Areas of exposed dentine and subsequent caries development
Sensitivity	Affected teeth frequently reveal sensitivity, ranging from mild response to external stimuli to spontaneous hypersensitivity. MIH molars may be difficult to anesthetize
Atypical restorations	The size and shape of restorations do not conform to the typical caries picture. In molars, the restorations are extended to the buccal or palatal/lingual smooth surface. Opacity can be frequently noticed at the margins of the restorations. First permanent molars and incisors with restorations having similar extensions as MIH opacities are recommended to be judged as that
Extraction of molars due to MIH	Extracted teeth can be defined as having MIH when there are: - Relevant notes in the records - Demarcated opacities or atypical restorations on the other first molars - Typical demarcated opacities in the incisors

### Prevalence and management of MIH

The results from the literature review show studies that focus on different directions. Some studies focus on determining the prevalence of MIH in different countries as well as identifying possible etiological factors. These studies show that the prevalence of MIH varies from 2.4 - 44% in different countries (3,8,9,10,11,12). In Albania, the prevalence reported by Hysi et al. (2016), is 14% (13). Currently, the etiological factors are better understood. MIH is a multi-factorial condition that in some cases

may result from environmental-gene interactions. The risk of MIH appears to be increased by systemic medical conditions such as perinatal hypoxia, preterm, and other hypoxia-related perinatal issues, including cesarean delivery. Infant and childhood illnesses are also associated with MIH, and symptoms of illnesses such as fever and antibiotic use have also been connected to MIH (20). Low birth weight or disorders in the metabolism of calcium and phosphates are also among possible factors (8,12,14).

Other studies focus on the management and treatment of MIH. The management of MIH presents a series of difficulties related to the sensitivity and rapid evolution of caries attached to teeth affected by MIH, the difficult cooperation with the child patient, difficulties in achieving anesthesia as well as the continuous breakdown of the enamel from the margins of the cavities (11).

Regarding the treatment of MIH, data coming from the literature, suggest that it depends on the eruption phase of the affected tooth as well as the degree of hypomineralization. In newly erupted teeth affected by MIH, preventive therapy is indicated aiming to prevent post-eruptive enamel breakdown. In mild cases of MIH, when a minor loss of substance is detected, restoration with glass ionomer cement is recommended (11,14, 15, 16). This is considered a temporary intervention until the tooth fully erupts, and the possibility of cooperation with the patient increases. The fluoride released by the glass ionomer cement can affect the prevention of the evolution of caries or the appearance of secondary caries. In cases with greater loss of dental substance, composite restoration or complete tooth coverage with stainless steel crowns should be considered (17). Studies show that if two or three-fifths of the tooth surfaces are affected, composite fillings have satisfactory long-term performance and can be an alternative to stainless steel crowns (15). The reported longevity of composite fillings averages up to 5.2 years (14,15). The longevity of stainless-steel crowns is less reported in the literature.

In cases of severe forms of MIH, extraction may be considered. If the extraction of the first permanent molars is done before the eruption of the second molars (more precisely, at the beginning of the calcification of the bifurcation of the second permanent mandibular molar), then the occupation of the space of the first may occur spontaneously, with favorable results for the patient. This period corresponds to the age of 8.5-9.5 years (5). In some cases, orthodontic intervention is necessary to improve the function of the dental-maxillary apparatus.

In Table 3, the recommended steps to be followed in the management of teeth with HMI are summarized (11).

**Table 3.** Clinical management of first permanent molars with MIH

Steps	Recommended procedures
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Risk identification	Asses medical history for putative etiological factors
Early diagnosis	Examine at-risk molars on radiographs if available
Remineralization and desensitization	Apply localized topical fluoride
Prevention of dental caries and post-eruption breakdown (PEB)	Institute thorough oral hygiene home care program Reduce cariogenicity and erosivity of diet. Place pit and fissure sealants
Restorations or extractions	Place intracoronal (resin composite) bonded with a self-etching primer adhesive or extracoronal restorations (stainless steel crowns) Consider orthodontic outcomes post-extraction
Maintenance	Monitor margins of restorations for PBE Consider full coronal coverage restorations in the long term.

## Conclusions

This literature review related to MIH aims to bring to the attention of professionals this form of pathology, which is encountered relatively frequently and may require a multidisciplinary intervention. A very important factor is the early diagnosis form, the recognition and awareness of parents regarding the factors that influence its appearance as well as the treatment options. Remineralization and early preventive therapy can prevent massive post-eruptive enamel breakdown as well as other serious complications, with an important psycho-social impact on the child's life.

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## **Economic and social consequences of emigration on home country: Albania Case**

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### **Abstract**

Although more than thirty years have passed, migration has been a dynamic process. Sometimes Albanians see emigration from Albania as the best solution, but which is the impact of emigration on Albania? Many different studies have been analyzed the economic and social consequences of emigration on the countries of origin. Mostly migration can generate positive effect for countries of origin via benefit from remittances, reduction of unemployment, migrants often bring home new ideas, skills, and knowledge that they have acquired. But migration can also generate negative effect for countries of origin. So, the most negative impact on the country is the fact that young or skilled labor and professional leave to offer their services to other countries High future migration potential and low birth rates will lead to a shrinking population and labor force, a changing age structure, and a decrease in the quality of human capital (Gëdeshi, I. & King, R., 2018). This paper aims to analyze the consequences brought by the continuous phenomenon of emigration of Albanians, both in economic and social aspects.

**Keywords:** migration, economic consequences, social consequences, Albania

JEL Classification: F 22, F 240, P 2

### **Indrotuction**

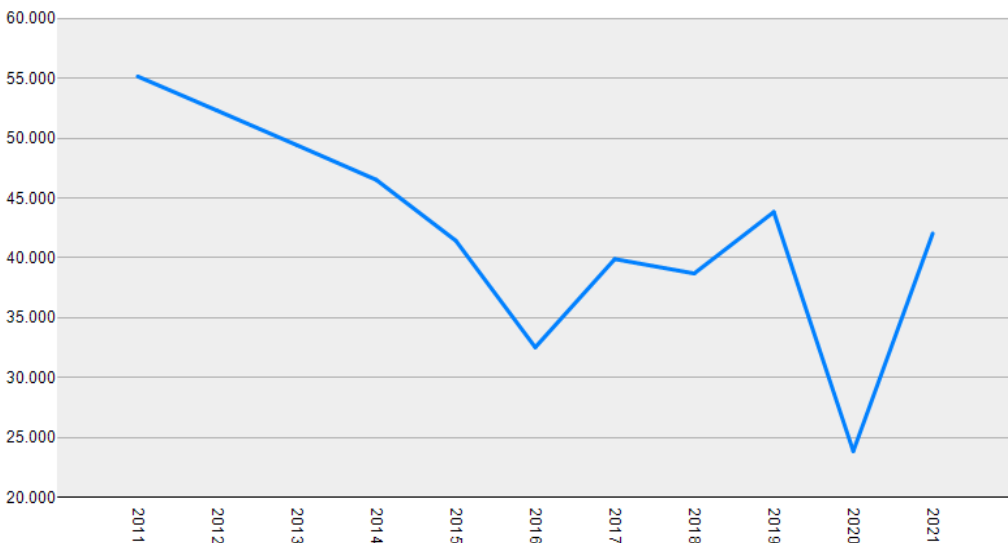
At the beginning of the 90s, Albania faced the change of the economic system, from the centralized economy to the to the market economy. During this time, Albania also faced the great desire of people to emigrate abroad for a better life. The first emigration wave is the period 1991-1992. In the summer of 1990, about 5,000 Albanians entered the embassies in Tirana, and in August 1991, about 20,000 Albanians left the country by boat to Italy. During the period December 1996 - April 1997, Albania faced another wave of emigration. As a result of the collapse of the

corrupt financial pyramid schemes in 1997 (where most Albanians lost their savings) the country was engulfed by political-social unrest. During this period, Albanians saw emigration to other languages as a problem of their problems.

In his article (Barjaba, 2004) states that around 30 percent of Albanians are currently below the poverty line, and half of them live in extreme poverty, subsisting on less than \$1 per day. For this reason, the main factors that push Albanians to emigrate are unemployment, poor living conditions, lack of individual security and political security (De Sotto et al., 2002). From 1989 to 2001, about 710,000 people, or 20 percent of the total population, emigrated from Albania, mainly to Greece and Italy and less to other countries. After 1998, the emigration flows suffered a significant decrease. But, with the liberalization of visas in 2010, Albanians had the opportunity to move to the countries of the Schengen area. By (Kule *et al.* 2002) emigration pressures are likely to remain very strong in Albania for the foreseeable future, driven mostly by economic forces.

In the study of (Gëdeshi, I. & King, R., 2018) it was observed that 52% of the Albanian population of the 18-40 age group want to migrate from Albania, compared to the 2007 survey, where 44.2% of this age group wanted to emigrate. According to (Gëdeshi, I. & King, R., 2018) aspects related to economic conditions, working conditions, low wages, lack of perspective are important factors that drive people to migrate for a better life and future.

**Figure 1: The trend of emigration in Albania**



**Source:** INSTAT, 2023

During 2020, due to the COVID-19 pandemic and the restrictive measures that were taken in all countries, the number of people emigrating decreased significantly. But, with the removal of the restrictive measures, we noticed a significant increase in the number of immigrants. What is noticed now is that if at the beginning of the 90s, the majority of potential migrants were the unemployed, the unskilled and the uneducated, who were mainly driven by the difficult economic conditions they were in, now it is noticed that people who want to emigrate are all those who have different skills, people with higher education or people with high incomes. But what are the reasons that encourage this category to emigrate? By Gwdeshi.I, people want to leave because they see no future in Albania.<sup>5</sup> Hope for a better future and prospects in host countries are key pull factors influencing international migratory experiences. The perspectives sought range from education, employment, to the overall quality of life for the individual migrant and his or her family. (King & Vullnetari, 2003)

In the article (Zisi. A, et al 2022) factor “*Future in Albania*” shows that 75% of the sample taken in the study think they would solve this factor as a reason for leaving Albania. The security they seek for the future encourages young Albanians to leave as young people perceive this factor to be very important. The difficulties they face make them skeptical about their future employment in Albania and see emigration to developed countries as a solution.

## **The positive impact of migration on Albanian economy**

### **Benefit from remittances**

Emigration has played an important role in the economic development of the country, mainly in alleviating poverty and reducing unemployment over the years. According to (Katseli et al., 2018) migration can generate positive effect for countries of origin as remittances, reduction of unemployment, human capital accumulation, return migration etc. According to (Ratha, 2003), remittances are among the largest flows of external financing for developing countries.

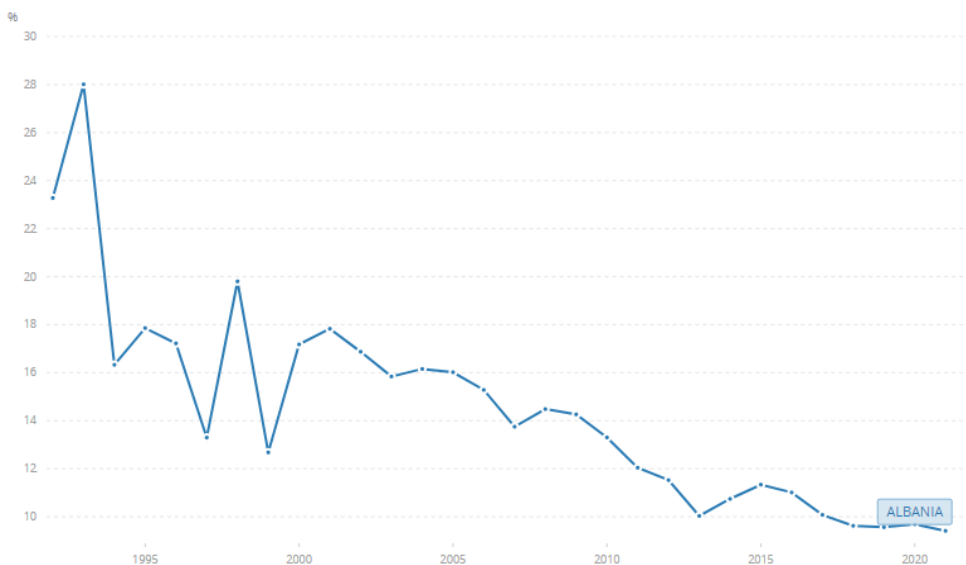
One of the most positive impacts of immigration on the Albanian economy has been remittances, the income that immigrants have sent to their families for a better life. According to a survey by the Bank of Albania (2007), it is estimated that about 26% of families in the territory of the Republic of Albania benefit from remittances from abroad. In the early 90s, remittances were mainly used to meet the basic needs of families, but over the years their use has changed. Now most of the beneficiary families use the remittances to improve their living conditions, for investments at home or in business, in children's education, etc. As such, remittances have a positive impact on the welfare of families and the country as a whole (OECD, 2006).

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<sup>5</sup> <https://www.reuters.com/article/us-albania-migration-trends/albania-migration-trends-change-52-percent-mull-leaving-idUSKCN1MT2HF>

Mainly, immigrants' remittances have been through formal channels such as: Bank, Western Union, Money Gram, etc., or informal channels: income brought by friends, family, etc. During the years 1992-1996, it is noticed that remittances have been increasing; during 1997, remittances fell due to the bankruptcy of various pyramid schemes and from 1999-2008 an increase in remittances from immigrants. In 2004 remittances reached over 1 billion dollars, representing between 10 and 22 percent of the country's GDP, and exceeding several times the amount of foreign direct investment (FDI) in the country (Volunteer, 2007). Regarding the period 2014 - 2017, the impact of remittances on economic growth is estimated at the level of 0.2 percentage points for an average economic growth of 2.8% Maintaining growth rates or at least remittance flow levels is very important (Bank of Albania, 2018).

**Figure 2: Personal remittances, received (% of GDP)- Albania**



Source: World Bank,2023

### Knowledge and skills flow

Mostly, migrants often bring home new ideas, skills, and knowledge that they have acquired. They usually return with savings, useful skills and contacts which help to establish a business and to increase innovation for their country of origin. Many businesses, farm practices, and economic ventures have been started by people who got ideas and knowledge during the times they spent in migration.

In their survey (Kule *et al.* 2002) provide evidence that the proportion of remittances invested in productive activities appears to be modest. The results from the firm survey provide a better understanding of the importance of remittances for job creation (Skills and contacts acquired abroad are useful on return), and more generally of the value of emigration for Albania. The study undertaken by INSTAT and IOM showed that during the period 2009–2013, 133,544 Albanian emigrants returned to Albania, where 34 percent of the returned migrants were employed, 20 percent were self-employed, and 46 percent were unemployed (INSTAT, IOM 2014).

### **The negative impact of migration on Albanian economy**

#### **Loss of skilled labor**

The most negative impact of emigration on home country is the fact that skilled labor and professional leave to offer their services to other countries. When countries are experiencing high levels of migration, the young population of that country (country of origin) will not be able to provide their previous level of economic contributions. This can result in a significant loss of wealth to the country as a whole. The socio-economic consequences of this phenomenon are clearly evident: every year, qualified human and financial resources leaves the country (Gëdeshi, I and King, R 2018).

Mostly young educated people have emigrated and their leaving reduces the productive labor force in the countries of origin. In Albania, in most cases, educated young people or qualified workers, like doctors, nurses, engineers, and very bright professionals, face high unemployment or very low wages. The loss of creative capital is one of the negative consequences, which becomes significant in cases of the emigration of young people because they represent the source of future innovation, production, and ideas (Jevtović, N. 2020). The educational system also does not meet the requirements of the labor market. These problems impact negatively on human capital and increase the desire of young people to emigrate for a better life (Mara, I. and Vidovic, H 2020).

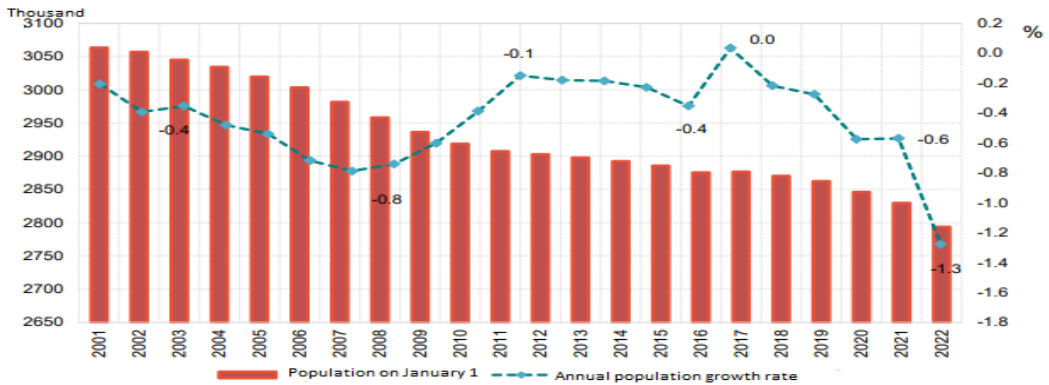
#### **Population**

Albania is currently growing very slowly, with a growth rate of just 0.34%. According to the Institute of Statistics (INSTAT), the population of Albania on January 1, 2022 was 2,793,592 residents. The population has decreased by 1.3%, compared to the previous period January 1, 2021. During the year 2021, the natural increase of the population (birth-death) was -3,296, marking for the first time a negative natural increase. As can be seen from the graph below, the annual population growth rate has been decreasing year after year. Over this period, it is expected that the net migration will remain negative, but steady and that the decrease in numbers will be due to the increasing gap between the low birth rate and high death rate<sup>6</sup>.

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<sup>6</sup> <https://worldpopulationreview.com/countries/albania-population>

**Figure 3: Annual population growth rate**



Source: INSTAT, 2022

In Albania the combination of high emigration of young qualified people, low return migration, high future migration potential and low birth rates will lead to a shrinking population (Gëdeshi, I and King, R 2018).

### Social/Family

Emigration, as a continuous process in our country, has been associated with both positive and negative impacts. During the last years, the process of emigration is giving powerful demographic and socio-economic consequences, such as the emptying of the country, the aging of the population, the decrease in the number of births etc<sup>7</sup>.

The most negative impact that emigration has brought to Albanian society is the social and family impact that accompanies all families that have one or more members in emigration.

Many Albanian sociologists and psychologists argue that immigration carries serious socio-economic consequences. The UNICEF study in 2009 identified 4,290 children with one or both parents in emigration. The separation of the family for a long time and the absence of the father in raising children is associated with negative effects. Children who live with one parent (when the other parent is emigrating) manifest emotional problems, anxiety and depression, at higher levels than children who live with both parents. Also, another social problem that emigration shows is the increase in the number of people living alone. According to psychologist A. Muçaj, the psychological impact on parents is very large, because it is related to their emotional well-being and to the fact that the elderly need both emotional and financial support<sup>8</sup>.

<sup>7</sup> Tushi, G. (2019, June 14). Ekspertët: Nga Shqipëria po ikin njerëzit me standard jetese. Deutsche Welle

<sup>8</sup> <https://shqiptarja.com/lajm/përse-emigrojnë-shqiptarët>

## Conclusion and suggestion

If at the beginning of the 90s, Albanians emigrated mainly for economic reasons, in recent years there has been an increase in the number of people who want to emigrate even though they have a good income, are highly educated, and have a good standard of living. etc. The reduction of the population due to emigration, the aging of the population, the decrease in the number of births, etc., bring negative impacts on the Albanian economy.

The solution lies in equipping young people with education and qualification according to market needs. Necessity is the restructuring of the education system, taking into account the demands or needs of the market for different professions. If young people leave mainly for a better life in developed countries, then there is a need to improve the business climate as well as to increase the level of wages in order for everyone to ensure a good standard of living.

The mass emigration that appeared especially after 2020 is accompanied by disturbing problems, therefore the government's intervention is seen as necessary to minimize this phenomenon. Governments should aim constantly to improve the business climate by simplifying the tax system, reforming the banking sector, reducing bureaucracy, and eliminating waste and corruption in the public sector. The return of emigrants and the redirection of remittances to productive activities can be greatly facilitated by investment incentives provided through the tax and banking system (Kule *et al.* 2002)

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## **Relationship between Internet Addiction and Life Satisfaction Among Students: Case of Albania**

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### **Abstract**

Nowadays, human life has become very intensive. Since we live in the age of technology and we are part of a global world, the Internet has become an indispensable part of everyday life, bringing many benefits to people. However, its excessive use can often leave to negative consequences that affect the psychological well-being of the individual as well as the evaluation and general perception that the individual has of his life. This article comes as a result of studies in the wake of further research in the field of Internet addiction among teenagers and students in our country. The purpose of this article is to study the relationship between internet addiction among students aged 18-21 in Albania and their level of life satisfaction, as well as specifically the impact that life satisfaction has on internet addiction. In this study participated 268 students from three universities in Albania. Data were collected through online completion of Young's (1998) Internet Addiction Questionnaire, and Diener's (1985) Life Satisfaction Questionnaire. The study highlighted the fact that there is a negative, statistically significant relationship between Internet addiction and the level of life satisfaction in the target group included in the study.

**Keywords:** Internet addiction, life satisfaction, students.

### **Internet addiction**

Internet addiction has been studied for several decades worldwide and various researchers have contributed to a better understanding of this phenomenon. (Lachman et. al., 2017). In Albania studies about internet addiction have begun in the last decade, but there is still a lot of work to be done in this direction, especially to get to know the reality of Internet addiction in different age groups.

Kuss et. al., (2014) as cited by Agaj (2016) expressed that to describe internet addiction have been used various terms, including compulsive internet use, internet addiction, pathological internet use, problematic internet use, virtual addiction, internet addiction disorder, etc. Thus, according to Shek & Yu (2012) as cited by

Bozoglan, et.al. (2013) although there are different views on Internet addiction and pathological Internet use, the term refers to the fact that a person cannot control his Internet use, thus leading according to Young (1999) to functional impairment. Moreover, Shapira et. al., (2003) point out that Internet addiction can result from a lack of control, anxiety, and social, professional, and financial problems. (Agaj, 2016).

According to Lin & Tsai (2002), individuals with Internet Addiction have the desire to spend more time online and experience feelings of exaltation while using the Internet. They use the Internet in an excessive way and show withdrawal symptoms and admit that the use of the Internet negatively affects such areas of their lives as school, health, and relationships with parents (Bozoglan, et.al., 2013).

Griffiths et. al. (2014) define addictive behavior as any type of behavior with several typical features, among which salience, mood swings, tolerance, withdrawal symptoms, conflict, and relapse are worth mentioning. According to them, any behavior that contains these 6 elements meets the criteria for being an addictive behavior (Agaj, 2016).

Christakis describes Internet addiction as the epidemic of the 21st century (Kuss, Griffiths & Binder, 2013). Pontes and Macur (2021) point out that according to recent statistics, about 4.66 billion individuals worldwide use the Internet actively. Thus, the Internet has changed people's lifestyles more than any other medium, and its overuse often brings negative consequences. When its use interferes with interpersonal relationships, at work or at school, it can be classified as an addiction (5 Types Of Internet Addiction - Get Help Today - Addiction Center). According to Young, (2011) despite the fact that Internet addiction does not cause the same physical problems as substance addiction, it is attracting the attention of many experts in the field of mental health due to the similarity in social consequences. (Agaj, 2016, 2022).

### **Life satisfaction**

The term life satisfaction is often very similar to the term happiness in life, but they are fundamentally different. Various researchers over the years have tried to explain the notion of satisfaction in life. As cited by Shahnaz & Karim (2014), life satisfaction is one of the indicators of good mental health. It refers to a judgmental and cognitive process. It is not a personal fact but a cognitive product that includes a comparative process between the current life situation of the individual and the internal standards thus allowing the interviewees to use the information that they subjectively deem appropriate when valuing their lives. Thus, life satisfaction refers to how an individual perceives how his/her life has been and how he/she feels it will be in the future.

Meanwhile, Diener (2002) defines life satisfaction as a cognitive and affective evaluation of an individual's life. Ellison & et. al., (1989) define life satisfaction as a cognitive evaluation of a state that is thought to be relatively stable and influenced by social factors. On the other hand, Ruut Veenhoven (1996) has emphasized that life

satisfaction refers to the degree to which a person positively evaluates the quality of his/her life as a whole. Also, Butell (2016) has defined life satisfaction as a general assessment of feelings and attitudes about life at a particular moment in time, ranking from negative to positive.

Çapan (2010) stated that satisfaction in life is a concept that includes both the cognitive and the emotional evaluation that the individual has for his life. On the other hand, County in 2019 points out that life satisfaction is related to how much the individual likes the life he/she leads. (Alqahtani and his colleagues, 2020). Thus, according to Zatrow et al. (2015), as cited in Kocak et., al. (2021), life satisfaction is a concept that refers to the joy an individual derives from his life and his psychological well-being. Regardless of the definitions, basically, life satisfaction refers to the general feeling that the individual has about his/her life. Life Satisfaction Theory & 4 Contributing Factors (+ Scale) (positivepsychology.com).

### **Relationship between internet addiction and life satisfaction**

Studies on Internet addiction and life satisfaction in some cases appear contradictory in terms of their results. According to Blanchio (2019), the relationship between Internet addiction and life satisfaction depends on culture. Meanwhile, according to Senol-Durak and Durak (2011), Internet addiction has an impact on life satisfaction. According to Lachman and colleagues (2016), life satisfaction has a significant relationship with Internet addiction (Alqahtani et., al. 2020), According to Shanaz & Karim (2014) individuals with Internet addiction have a lower level of life satisfaction. According to Sahin (2017), there is a negative relationship between social media addiction and life satisfaction. Addiction to social media is an important variable that affects life satisfaction. Bozoglan et., al (2013) evidence a negative relationship between life satisfaction and Internet addiction. Noroozi and his colleagues (2021) highlighted the fact that individuals who had high levels of Internet addiction presented low levels of quality of life.

However, according to Cao et., al. (2011), as cited in Alqahtani et., al. (2020), other studies highlight the fact that Internet addiction has a positive relationship with life satisfaction. According to Turan et., al. (2020), the Internet is an inseparable part of life nowadays, which makes human life easier, thus increasing the level of life satisfaction (Alqahtani et., al. 2020).

### **Aim of the study**

The aim of this article was to study the relationship between internet addiction among students aged 18-21 in Albania and their level of life satisfaction, specifically the impact of life satisfaction on internet addiction.

### **The hypothesis of the study**

*Internet addiction is negatively related to life satisfaction.*

## Objectives and research questions

**Objective 1:** To study the relationship between Internet addiction and life satisfaction.

**Research question 1.1:** What is the relationship between Internet addiction and life satisfaction?

**Objective 2:** To study the differences in life satisfaction between students aged 18-21 with and without Internet addiction.

**Research question 2.1:** Are there differences in life satisfaction levels between individuals with and without Internet addiction?

## Methodology

**Champion:** Part of this study are students in the age group of 18-21 years, randomly selected in the contacts of secretaries in 3 universities in our country. The number of the sample taken in the study is 268, of which 178 are girls and 90 are boys. The quantitative analysis carried out with SPSS is intended to identify the relationship between life satisfaction and Internet addiction.

**Instruments:** The Internet Addiction Scale (IAS) of Kimberly Young (1998), which consisted of 20 statements, was used to measure the level of Internet addiction. The reliability coefficient was Alpha Cronbach = 0.904 (Agaj, 2016). To measure the level of life satisfaction, the Life Satisfaction Scale of Diener (1985) was used, which consisted of 5 statements, the answers of which were realized with the Likert scale. The Life Satisfaction Scale was translated and adapted into the Albanian language by some professionals in the field and good English speakers. The reliability coefficient was Alpha Cronbach = 0.884.

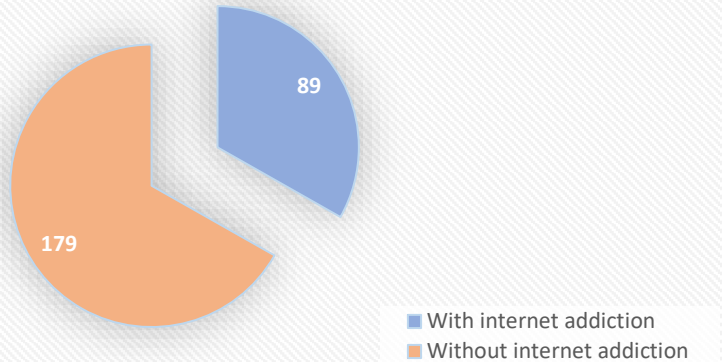
**Data analyses:** Data analysis was performed with SPSS and Excel. The distribution was examined after data cleaning. In the following, the reliability coefficient of the instruments was calculated, as well as a series of analyses related to binary logistic regression, t-test, etc.

## Data analyses

As seen in the graph below, 89 students or 33% of the sample have resulted with Internet addiction. From these only 11 students or 4% of the sample have resulted in pathological use of the Internet. Meanwhile, more than half of the students included in the study use the Internet, but manage to control its use, thus not creating an addiction to it.

Graph no. 1: *Distribution of the sample according to Internet addiction*

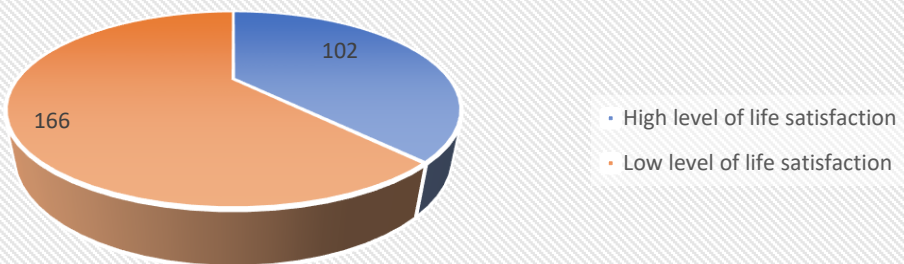
### *Distribution of the sample according to Internet addiction"*



On the other hand, about 38% of the target group included in the study resulted in high levels of life satisfaction, while the majority, about 62%, resulted in low levels of life satisfaction.

Graph no. 2: *Distribution of the sample according to life satisfaction*

### *Distribution of the sample according to life satisfaction*



From the statistical analysis, through the Kendal correlation coefficient was found a negative, statistically significant relationship between Internet addiction and life satisfaction ( $r =$

$-0.104, p=0.001, n=268$ ).

*Table no. 1: Relationship between internet addiction and life satisfaction*

Relationship between internet addiction and life satisfaction			
Variable	r*	No.	p
Life satisfaction	-0.104	268	<0.001
* Kendal correlation coefficient			

For every increase of 1 point in life satisfaction, the likelihood of Internet addiction decreases by 3%. (OR=0.84; CI=95%, 0.82-0.85; P< 0.001). So, high levels of life satisfaction serve as a protective and inhibitory factor for the development of Internet addiction.

*Table no. 2: Regresioni logjistik binar ndërmjet varësisë nga interneti dhe kënaqësisë në jetë*

	Internet addiction		OR	CI 95%	p
	with symptoms (n=89)	Without symptoms (n=179)			
Average points	17.54±7.20	26.12±6.81	<b>0.84</b>	<b>0.82-0.85</b>	<b>&lt;0.001</b>

From t-test analysis resulted that there are differences between students addicted to the Internet and those not addicted to the Internet in relation to life satisfaction. The value that resulted from Levin's test is 0.46>0.05. So the groups can be compared. (t=3.481, df=928 Sig (2-tailed) = 0.00<0.05. Students without internet addiction present higher levels of life satisfaction (m= 26.12. sd=5.13) compared to students with internet addiction (m=17.54, sd=6.84).

*Table no.3: Data on the evaluation of life satisfaction in relation to internet addiction*

Internet addiction		Nummer	Mean	Standard deviation
Life satisfaction	With symptoms	132	26.12	5.13
	Without symptoms	68	17.54	6.84

## Conclusions and discussions

The study aimed to investigate and highlight the relationship that exists between Internet addiction and life satisfaction among students aged 18-21 in Albania, as well as the impact that the variable of life satisfaction has on Internet addiction. From the analysis, resulted that there is a negative, statistically significant relationship between Internet addiction and life satisfaction, thus proving the hypothesis raised in this study. This means that as life satisfaction increases, the likelihood of students developing Internet addiction decreases, and conversely, as life satisfaction decreases, the likelihood of students developing Internet addiction increases. Such a result is also supported by several studies carried out in the world (Blanchio, 2019., Bozolgan, 2013., Lachmann, 2016., Noorozi et., al, 2021., Sahin, 2017., Senol-Durak & Durak, 2011., Shanaz & Kerim, 2014). Even the analysis of the t-test highlighted the fact that there are differences between students with Internet addiction and students without Internet addiction regarding the levels of life satisfaction. Also, this study pointed out that high levels of life satisfaction among students aged 18-21 in Albania act as a protective factor against Internet addiction, which means that students who have a positive evaluation of their own life, know very well what they want from life and what would they do in the future. So, they have clear objectives and present control in the use of the Internet, as a necessary medium in everyday life, avoiding addiction to it. If we refer to Blanchio (2019), who links internet addiction and life satisfaction with culture, it is worth emphasizing the fact that students with high levels of internet addiction and low levels of life satisfaction are also influenced by the situation Albania is going through. The post-pandemic crisis, impacted people and especially young people to leave Albania in search of better living conditions and opportunities for a better life both personally and professionally in developed countries. This has its own impact on the evaluation of the level of satisfaction that the individual receives from life.

### **In conclusion, we can say**

There is a negative, statistically significant relationship between Internet addiction and life satisfaction.

Life satisfaction is a significant predictor of Internet addiction.

There are differences in the levels of life satisfaction between students with and without Internet addiction.

Further studies should be done in the future.



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## **Metaphor as a Technique in Therapy**

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### **Abstract**

In elementary school, we discover that a metaphor is a decorative linguistic device just for poets. But now that we know, it's also a crucial tactic that individuals employ to understand the universe, from fundamental ideas like time and causation to the most pressing societal challenges today. Metaphor is the use of language to refer to something other than what it was originally intended for, or what it "literally" means, in order to suggest a similarity or establish a connection between the two. People do not identify metaphors as relevant in their decisions, according to a study on metaphor and its effect on decision making; instead, they refer to more "substantive" (typically numerical) facts as the basis for their problem-solving decision. Every day, metaphors saturate our lives via language, cognition, and action. They argue that our conceptions shape our views and interactions with others and that concepts define our reality. Metaphor is thus a highly helpful tool for both describing our experiences to others and forming notions for ourselves. In therapeutic contexts, their shared goal appears to be twofold. The cognitivist approach to metaphor regards it as one of the fundamental foundations of human communication. The benefits and disadvantages of utilizing the metaphor differ depending on the target domain that the metaphor portrays. The challenge of creating messages and surroundings that affect customers' notions of abstract ideas in a variety of industries, including health, hospitality, romance, and money, has been studied for decades in marketing and consumer psychology. The aim of this study is to examine through a systematic literature review the role of the metaphor in communication and in advertising. This study offers a selected analysis of this literature, concentrating on research on customer attitudes and product appraisal. The analysis of the data identifies potential research questions. With theoretical and applied implications for marketing, design, and persuasion, this study sheds light on how, when, and for whom metaphoric communications are powerful.

**Keywords:** metaphor, communication, advertising, cognition, action.

## 1. Introduction

Metaphor is the use of language to indicate a likeness or build a connection between two things that are not the same as each other or what it "literally" means. According to a study on metaphor and its impact on decision making, people do not consider metaphors to be important when making judgments. Instead, they base their decisions on more "substantive" (usually numerical) information. Language's "dreamwork," metaphor, is interpreted in a way that is just as much a reflection of the interpreter as it is of the original. Dream interpretation necessitates collaboration between a dreamer and a walker, even if they are the same person, and the process of interpretation is a work of the imagination in and of itself. Understanding a metaphor is thus as much a creative process as creating one, and is as little guided by rules. Except in a minor way, these observations do not separate metaphor from more normal language transactions: all communication through speech requires the interaction of innovative production and inventive construal. What metaphor brings to the ordinary is an achievement that does not rely on the ordinary's semantic resources. There are no rules for creating metaphors, no manual for identifying what a metaphor "signifies" or "says," and no taste test for a metaphor.

A metaphor implies some level of creative achievement; there are no bad metaphors, just as there are no bad jokes. Given the abundance and seeming diversity of metaphorical statements, a student of the topic might benefit from some commonly recognized classification in making even the most basic distinctions: However, he is currently in a worse position than any biologist before Linnaeus. The only fixed classification is based on the trite dichotomy (sometimes represented figuratively) of "dead" and "living" metaphors. This is no different from seeing a corpse as a particular instance of a person: A so-called dead metaphor is nothing more than a term that no longer has a pregnant metaphorical function. A poor metaphor might be compared to a bad joke or an unilluminating philosophical epigram: one interprets the unsuccessful or failed language activities in terms of what would be humorous, illuminating, or whatever. However, although all jokes are designed to be humorous and fail to be so, not all metaphors strive for strength, and some may be no worse for it. Metaphors are not simply literary techniques, but also cognitive devices. They may create a mental image in the public's mind when none previously existed, as well as remodel and update our collective mental representations of societal concerns. We may increase our influence by using them appropriately in our social change messages (Coulter & Zaltman, 2003). The purpose of this study is to investigate, via a thorough assessment of the literature, how metaphors function in both communication and advertising. This study provides a curated analysis of this literature with a focus on studies on consumer attitudes and product evaluation.

## **2. How Metaphors Influence our Decisions**

In these days and age of information overload, one of the first things individuals do after waking up is to check the headlines. Digital natives consume information by scrolling over overfeeds. Slower people pour coffee and open computers. Even most Luddites can unroll a paper newspaper in under one hour. Metaphors, broadly defined, employ context to emphasize a word's abstract meaning while muting its extraneous concrete qualities. We always employ metaphors, despite their affiliation with authors and poets. Why don't we notice metaphors if they're so common? Why are we so reliant on them? We comprehend them differently when we are familiar with them. Words are often polysemous, meaning they have multiple connected meanings, yet we easily settle on the proper sense based on the situation in which we meet them. For example, if a person is familiar with cheetahs and humans, they will realize that "run" suggests a different type of motion when referring to one species than the other, and no motion at all when referring to a refrigerator (Bowdle & Gentner, 2005).

A metaphoric meaning becomes conventionalized and interpreted like any other after frequent exposure. A newly created metaphor is more noticeable since it necessitates additional cognitive exertion to deduce its meaning. A listener must quickly identify whether semantic characteristics of a metaphorically expanded word are contextually relevant and disregard those that are not. If the headlines of tomorrow said, "The rich lope through the recession," efficient readers would suspend their customary connection of a loping stride with quadrupeds (Cardillo, McQuire & Chatterjee, 2018). The unusual agent of the verb (the rich) would signal against that habitual commitment, and the subsequent object (recession) would further narrow the verb's relevant qualities, limiting its interpretation to implying the 1 percent's casual comfort rather than their true walk. Applying these contextual limitations may require greater work for those who are unfamiliar. The feature-selection process necessitated by fresh metaphors places additional demands on our brain's left-lateralized language network and semantic control centers in the bilateral prefrontal cortex. This transition in cognitive and neurological processes is known as "the metaphoric career." Most metaphors we see daily are long-term, committed workers who are so dependable that we take their valuable job for granted. Some metaphors serve both aesthetic and cognitive purposes. Of course, authors utilize them in fiction and poetry to artistically communicate ideas, elicit empathy, and engage through imagery. Aesthetic concerns apply to ordinary speech and writing as well. When used correctly, metaphors may attract more attention than simple, literal statements, increasing subtlety and tone (Jamrozik, McQuire, Cardillo & Chatterjee, 2016).

## **3. Use of Metaphor in Advertising**

Despite advancements in standard mixed method research techniques that have improved our ability to gather timely, valid, and solid data, as well as truly

comprehend and analyse the information, advertising professionals continue to investigate and test alternative methods. Visual metaphors are frequently utilized to communicate advertising and marketing messages (Boozer et al., 1991). Clinique lipstick, for example, used a picture of a glass of soda in its advertisement to claim that the lipstick is cool and fresh (Scott, 1994); Dexter shoe advertisement included a picture of a bed to imply that the shoe brand is as comfortable as a bed; and Reflex sports racquet advertisement included an image of a shark to claim that the racquet will help one become a fierce and aggressive competitor (Phillips & McQuarrie, 2004). Phillips and colleagues examined rhetorical style in US magazine advertising from 1954 to 1999. According to McQuarrie (2002), different rhetorical figures, including visual metaphors, were common throughout the era and have risen in frequency throughout time. Two significant aspects of visual metaphor are rhetorical metaphor and visual modality. A metaphor is a rhetorical technique in which two distinct items are compared, and the characteristics of one object are transferred to the other as a result of the comparison (Sopory & Dillard, 2002). Visual metaphors are comparable to verbal metaphors, but they may also be classified as visual reasoning since they use the grammatical framework of visual persuasion (Messaris, 1997). In other words, rather than vocally describing two things or concepts that are analogically related, visual metaphors commonly juxtapose two visuals without supporting verbal explanations.

Thus, visual metaphors are more implicit and sophisticated than verbal metaphors, allowing for several interpretations (McQuarrie & Mick, 1996; Phillips, 2000). Both metaphorical rhetoric and visual argumentation, which may be classified as implicit argumentation, are likely to boost audiences' cognitive elaboration when processing the message, potentially leading to higher persuasion. Visual metaphors in messaging can be persuasive due to the metaphorical nature of the language. A meta-analytic analysis of metaphor literature found that metaphorical arguments can be more convincing than literal ones (Sopory & Dillard, 2002). The relative effectiveness of metaphorical rhetoric vs literal argumentation has been explained by three primary categories of explanations: cognitive, emotional, and motivational processes. First, cognitive explanations need greater information organization, idea elaboration, and cognitive resource mobilization. When presented with a metaphor like "words like a sword," people equate sword with notions like "sharpness" and "may injure," which are then related to the concept of "words." Gentner's concept of structure mapping proposes that metaphors convey a structural map of interrelated concepts based on relational concepts, (e.g., These semantic associations embedded in metaphorical messages necessitate greater mobilization of cognitive resources, eliciting greater thought elaboration. Petty and Cacioppo (1986) Second, metaphorical messaging have the potential to impact viewers through emotional processes such as a favorable attitude toward the advertisement and/or motivating processes such as improved source credibility. In terms of emotional processes, metaphors can lead to increased persuasion, which is mediated by a favorable attitude toward the advertisement.

According to metaphor studies, metaphorical messages can cause positive affect such as pleasure due to tension and relief processes (Bowers & Osborn, 1966; MacKenzie et al., 1986), in which (a) ad attitudes influence brand attitudes both directly and indirectly through their effects on brand cognitions, and (b) brand attitudes, in turn, affect purchase intentions. Third, a motivating explanation for the impacts of metaphor concerns message receivers' perceptions of the legitimacy of the source. Thus, metaphors may increase persuasion through good appraisals of the communication source by message receivers.

#### **4. Use of Metaphor in Therapy**

In the past, the therapist has typically been in charge of how metaphors are used in clinical practice (Bergman, 1985). In this work, we look at both implicit and direct metaphors related with narrative therapy that, when employed carelessly, might lead to disempowerment. These modalities include art therapy, play therapy, letter writing, journaling, audio and videotaping, and psychodrama. As a result, the definition of metaphor is implied by its roots, which also indicate "anything that passes from one to the other, so extending or introducing new meaning." The fundamental benefits of metaphor in therapy include the ability to convey meaning, connect disparate ideas, and push the mind to consider novel possibilities. According to Schön (1979), metaphor in the therapeutic context can refer to "a certain kind of product a perspective or frame, a way of looking at things—and to a certain kind of process by which new perspectives on the world come into existence." (p. This paper will focus on the concept of metaphor happening at various levels in therapy. The implicit metaphor is the metaphor that structures the frame of reference for therapy, such as "therapy is problem-solving" or "the family is a system." The second method is to use metaphor directly, to introduce metaphor as content in therapy and as a revisioning process with the client.

Throughout history, stories meant to inspire growth or change have used metaphor, the Greek word for transfer, to do so. Examples include biblical parables, myths, legends, and fairy tales (Campbell, 1988). One factor contributing to metaphor's enormous appeal as a tool for inspiring growth and change is that it enables the communication of new information and concepts utilizing the learner's own frames of reference (Langer, 1948). By comparing an apparently unknown concept to something the learner already understands, metaphors familiarize the unfamiliar, making new material seem less intimidating and easier to understand (Campbell, 1988). Metaphors also enable people to attribute the effect to language by evoking previous emotions. Furthermore, Langer (1948) claimed that the metaphoric process of thinking about and describing one thing in terms of another helps people come up with new ideas. It is not surprising that counselors have used metaphor as a therapeutic tool for decades due to its utility in conveying thoughts and feelings and eliciting growth and change (Barker, 1985; Barnat, 1977; Gordon, 1978; Martin, Cummings, & Hallberg, 1992).

Sigmund Freud (1965), Carl Jung (1961), Milton Erikson, and Carl Rogers (1942), among others, have argued in favor of the use of metaphors by counselors to promote the growth and development of their clients. In their analysis of the therapeutic metaphor literature, Lyddon, Clay, and Sparks (2001) noted that metaphors offer a method for counselors to use in a number of therapeutic functions, including (a) developing relationships with clients, (b) accessing and symbolizing client emotions, (c) revealing and challenging tacit client assumptions, (d) working with client resistance, and (e) introducing new frames of reference. According to S. B. Kopp (1971), therapists who are aware of and employ metaphors in their sessions enable clients to "shine a new light on the character of what is being recounted." Recently, metaphor has been extended to the practice of clinical supervision, which is an essential component of successful counselor training and lifelong development (Bernard & Goodyear, 1998). In their analysis of the supervision literature, Bernard and Goodyear noted that metaphors have the potential to help supervisee growth, but they also pointed out that many supervisors are not used to using metaphors or metaphoric activities in the supervisory session. As stated by Bernard and Goodyear, supervisors who aren't familiar with metaphors can nevertheless be effective by utilizing metaphors and metaphorical exercises created by other supervisors. This article's goal is to provide clinical supervisors with a summary of the many metaphoric activities that can be employed to aid supervisee growth. In addition, we evaluate the research on the use of metaphors in supervision to (a) describe the benefits and drawbacks of these strategies and (b) recommend areas for further investigation.

## **5. Disadvantages of Using Metaphors**

The PARC definition of the GUI included several elements like windows, buttons, mouse, icons, metaphors, and pulldown menus. The notion that metaphors offer a solid foundation for user interface design, in particular, is a rather deceptive one. It's like worshipping 5.25" floppy diskettes because they previously contained so much amazing software. The Apple Macintosh was the first commercially successful application of the PARC GUI, with its desktop metaphor, wastebasket metaphor, overlapping sheets of paper metaphor, and file folder metaphor. The analogies were little more than fine paintings on the walls of a well-designed home. Metaphors do not scale well.

A metaphor that works well for a simple process in simple software may fail when the process develops in size or complexity. Metaphors are understood intuitively. This method's drawback is that it relies on the creaking, cantankerous, idiosyncratic human mind, which may lack the essential language, knowledge, or inferential capacity to establish the link. Metaphors are not as trustworthy as comprehension. Sometimes the magic works, and sometimes it doesn't. The metaphor paradigm's intuition occurs without understanding the software's mechanics; therefore, it is a step ahead of the technology paradigm, but its power and utility have been



exaggerated to absurd levels. You quickly understand how to use a wastebasket symbol because you took the time to learn how to use a real wastebasket, training your mind to make the link years later. This leads us to the idiomatic paradigm, which is founded on the assumption that the human mind is an extremely strong learning machine and that learning is not difficult for humans (Cooper, 1995). The downsides are that metaphors violate cultural conventions, they apply design concepts that are in contradiction, and it might impose on designers how to perceive an issue. Moreover, they discourage users from using computers without using metaphors and restrict the designer's inventiveness and occasionally leads to the usage of substandard current designs in new goods (Rogers et al 2011).

## 6. Discussion

The idea that metaphors in natural language mimic how people think is expressed in the argument that metaphors reflect underlying conceptual representations. This is a more process-oriented approach to the metaphor that investigates how individuals use metaphors to learn about new concepts, make judgments about difficult topics, and influence others (Thibodeau, Hendricks, & Boroditsky, 2017). Think about spatiotemporal metaphors. It stands to reason, then, that Mandarin speakers are more likely to use time-moving metaphors in laboratory tasks than English speakers, who tend to use ego-moving metaphors, while Mandarin-English bilinguals use the two metaphors fairly evenly (Lai & Boroditsky, 2013) People naturally use patterns of metaphor from their home language when speaking and thinking, and they adapt when learning new languages by utilizing new metaphors from those languages. 2010's Kövecses; 2017's Winter & Matlock Research on metaphor framing is becoming more and more prominent, in addition to cross-linguistic metaphor studies. In metaphorical framework studies, participants are often presented with a brief description of a target organization, such as crime, immigration, or terrorism, and one or more metaphorical (and sometimes non-figurative) frameworks, before making a judgment or give an opinion. Steen, Reijniere and Burgers criticized this study in a 2014 paper abstract concepts such as relationships and emotional experiences (such as romantic relationships). Above all, metaphors allow us to think and discuss abstract and subjective events.

Literal language is inextricably linked to the sensory world. Metaphors broaden our thinking to include the intangible intellectual, emotional, and spiritual aspects of human experience. They broaden one's thinking, extend one's imagination, and improve interpersonal understanding.

The metaphor's usefulness and frequency belie its cognitive difficulty. Metaphor is one of the final language abilities learned throughout development. Such a versatile cognitive tool necessitates the involvement of several brain subsystems. The prefrontal cortex, one of the last brain areas to develop and the first to demonstrate age-related loss, is thought to govern the fluid coordination of this neuronal activity.

The ability to think metaphorically appears crucial to our minds' unusually abstract and flexible nature but it also looks particularly sensitive to neurological damage and illness. In language, like in life, what is most dear to who we are may be the most difficult to appreciate (Lawley & Tompkins, 2000).

## 6. Conclusion

The objective of the study was to study the role of metaphor in communication as well as its role in advertising. A metaphor, as the study found, is a verbal image that describes an item or activity in a way that is not technically correct, but helps clarify a concept or establish contrast. Metaphors are common in everyday discourse. Metaphor is known for helping people understand complex ideas, communicate effectively, and influence others. Metaphors are not just pictures of words but can actively shape our thoughts, feelings, and behaviors. Metaphor produces images that are more responsible and understandable than literal language because it allows the author to convey vivid images beyond the literal. The use of metaphors in writing helps writers convey emotions and impressions more effectively by stimulating the reader's imagination. The function of metaphor is to explain how it is easier for us to understand and remember than metaphorical language because it captures our imagination. We draw the conclusion that metaphor makes the right hemisphere of the brain, which controls our mental images, active from a systematic study of literature. Overall, individual distinct approaches to common metaphors have proven to be instructive for expanding the literature on metaphors and understanding how people are different. Future studies should focus on reviewing how different personalities use metaphor, and how it affects mental images. Furthermore, studies should include the correlation between metaphor use in therapy and its impact on patient mental health and general wellness.

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## Using Oral Anticoagulant During the Covid-19 Pandemic in Albania

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### Abstract

The COVID-19 pandemic is a global health situation characterized by a highly infectious respiratory illness caused by the novel coronavirus SARS-CoV-2. From the first burst until nowadays, the virus had a significant impact on global public health and economies, leading to widespread lockdowns, disruptions to daily life, and a significant number of hospitalizations and deaths. Therapy for COVID-19 primarily involved supportive care, such as supplemental oxygen and hydration, to help alleviate symptoms and prevent complications. Antiviral medications, such as remdesivir, and corticosteroids, such as dexamethasone were also used. With the advancing of the disease, it was seen that the disease attacked the blood vessels and clot formation was a major deadly side effect of the virus. The usage of anticoagulants became priority as they could help in reducing of the risk of thrombosis and other complications associated with the virus. In this study we present a brief summary regarding increase in the usage of oral anticoagulants' usage among Albanian population in a time slot of four years. The new virus was strongly associated and characterized with clot manifestation in the COVID-19 positive patients. The use of anticoagulants in COVID-19 is important because the virus was associated with a higher risk of thrombotic events, including deep vein thrombosis (DVT), pulmonary embolism (PE), and stroke.

**Keywords:** COVID-19, vascular damage, clots, anticoagulants, treatment, therapy

### Introduction

The COVID-19 pandemic is one of the greatest threats to human health in the 21st century with more than 257 million cases and over 5.17 million deaths reported worldwide. The new coronavirus (SARS-CoV-2) is responsible for a severe acute respiratory syndrome (1). The disease is characterized by a rapid onset of symptoms and can lead to severe respiratory distress, particularly in older adults and people with underlying health conditions such as cardiovascular disease, diabetes, and chronic respiratory disease. The virus has also been associated with a range of other complications, including acute respiratory distress syndrome (ARDS), pneumonia, and organ failure. In addition to its impact on human health, the pandemic has had

significant economic and social consequences, disrupting businesses and communities, and exacerbating existing inequalities and vulnerabilities (2).

Due to the created pandemic, worldwide public health authorities have implemented a range of measures, including travel restrictions, quarantine measures, and physical distancing, to slow the spread of the virus and reduce its impact on health systems. The development and distribution of vaccines has also been a key part of the response to the pandemic, and many countries have launched large-scale vaccination campaigns to protect the populations (2,3).

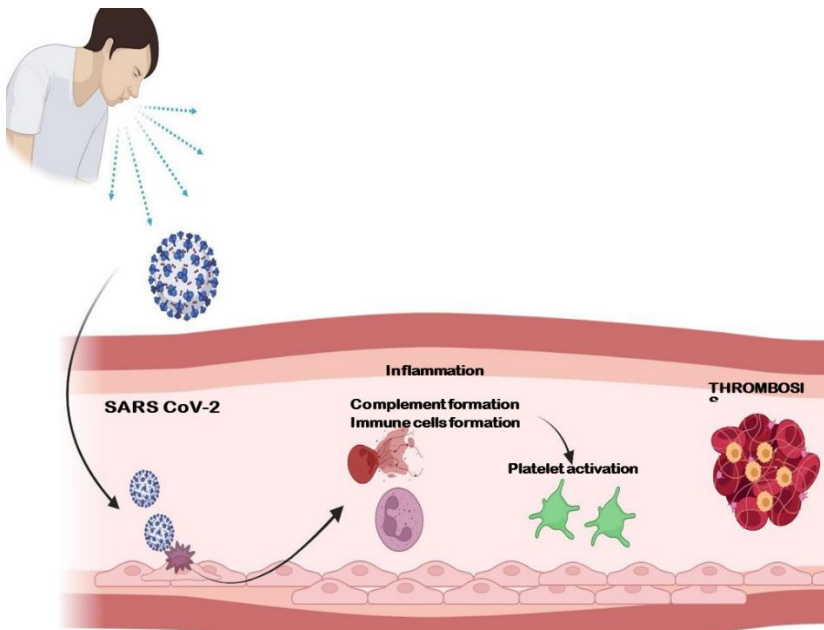


Figure 1. SARS CoV-2 enters human body, stimulates an excessive immune response and causes vasculature inflammation. Following this immune response, upregulation of tissue factors and platelets activation occur by causing thrombus formation.

Among its manifestations, it can develop a thrombotic disease, both venous and arterial, due to excessive inflammation that affects the vascular system, with platelet activation and endothelial dysfunction, among other mechanisms (4,5). Thrombosis is associated with SARS-CoV-2 infection, increasing its severity and conferring a worse prognosis. Possible mechanisms for thrombosis in COVID-19 and clinical consequences is the injury to the endothelium initiated by severe acute respiratory SARS-CoV-2 entry into cells via the angiotensin-converting enzyme 2 (ACE2) receptor is thought to lead to diffuse endotheliitis. The endothelial damage may

result in an inflammatory host response characterized by excessive immune activation and cytokine storm, which promotes hypercoagulability and thrombosis. This phenomenon led to the exploration of anticoagulants as a potential therapeutic option in the management of COVID-19 (5).

The incidence of thrombotic disease in individuals affected by COVID-19 is reported to be up to 31% (6). Given this increased risk of macrovascular and microvascular thrombosis in such patients with COVID-19, anticoagulants were suggested as an adjuvant option (7). Anticoagulants help prevent the formation of the clots and in the context of COVID-19, some studies suggested that they may play a role in the management of this disease. The SARS-CoV2 virus, which causes COVID-19, has been associated with an increased risk of blood clotting, particularly in the severe cases. Anticoagulants may have positive effects as they may reduce the burden of thrombotic disease and the hyperactivity of coagulation, and may also hold beneficial direct anti-inflammatory effects against sepsis and the development of acute respiratory distress syndrome ARDS. The use of anticoagulants in this setting appeared to have caused a significant reduction in mortality from this disease (8).

Recent data in the literature show that in the cases of severe COVID-19 infection, a reduced mortality is reported due to anticoagulants, in patients with high D-dimer and/or exhibiting sepsis-induced coagulopathy (9).

### **Purpose of the study**

This study provides an overview of regarding the quantitative difference on the use of some chosen oral anticoagulants, part of the reimbursement scheme in Albania, before and during the COVID-19 pandemic.

### **Materials and Methods**

In the current study, we performed a retrospective analysis regarding the use of anticoagulants in Albanian population. Our goal was to investigate the increased use of these medications in reducing the risk of thrombotic events in COVID-19 patient population. The study consisted of data collection through public health institutions in Albania. The study on the use of anticoagulant drugs was according to data published on the official website of the Compulsory Health Insurance Fund in our country from 2018 to 2021(10).



Figure 2. Schematic view of the years for collecting the data

The studied anticoagulants were Rivaroxaban (10, 15, 20 mg), Acetylsalicylic Acid 100 mg, Clopidogrel 75 mg, Apixaban (2.5 and 5 mg).

The data was analyzed using ATC/DDD methodology of the World Health Organization (WHO), version 2022, was used to calculate the use of the four anticoagulant drugs according to the reimbursement scheme in Albania. The results are expressed as defined daily doses (DDD) per 1000 inhabitants per day. The data regarding the population is extracted from the official website of INSTAT (11). Our findings provide important insights into the increased need regarding the role and the importance of anticoagulants in the management of COVID-19 and may inform future clinical practice guidelines and research in this area.

### Results

During 2018 - 2021 study period, all the studied drugs have experienced a significant increase in consumption. Acetylsalicylic acid is the drug with the highest consumption. Apixaban, the drug with the lowest consumption in 2021, was found to be the one with the highest consumption of all anticoagulants included in the study 9.14 DDD / 1000 inhabitants / day.

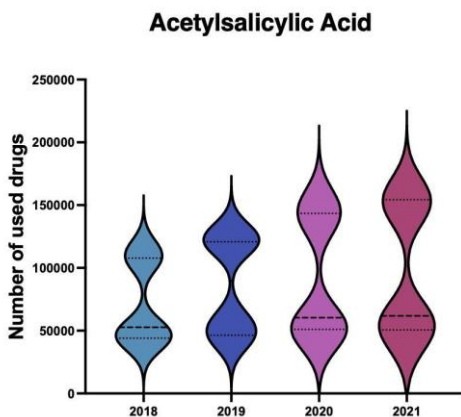


Figure 3. Acetylsalicylic acid consumption showed a time-point increase, although it didn't reach statistical significance.



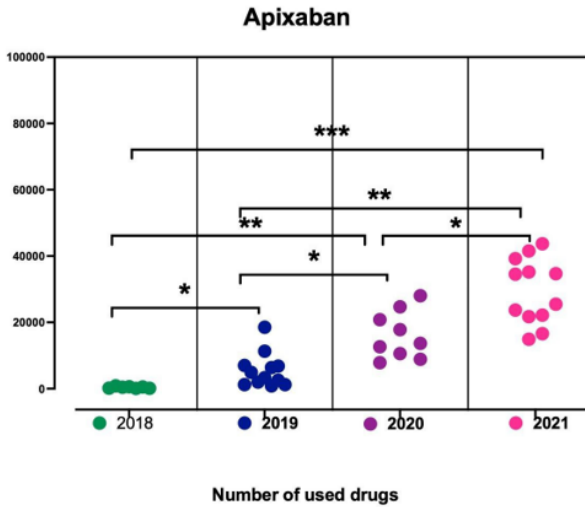


Figure 4. Apixaban experiences a sudden increase in the consumption by Albanian population during COVID-19 pandemic.

Rivaroxabane has seen an increase of about 70% in consumption during the study period. Clopidogrel and Acetylsalicylic Acid have seen an increase of about 40%.

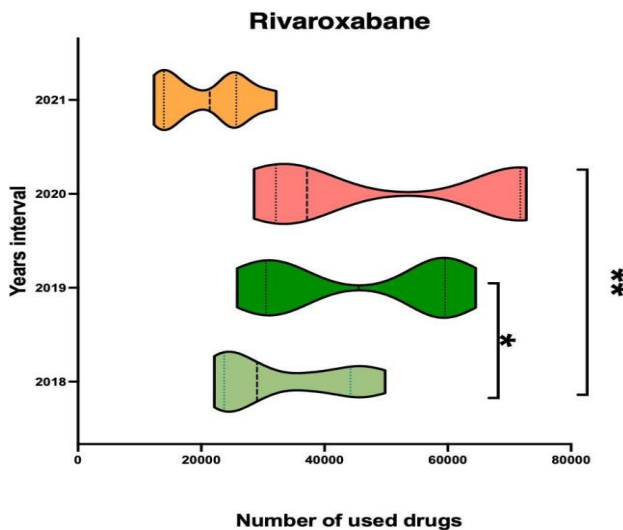


Figure 5. The consumption of Rivaroxabane experienced an increase of 70% and reached the statistical significance.

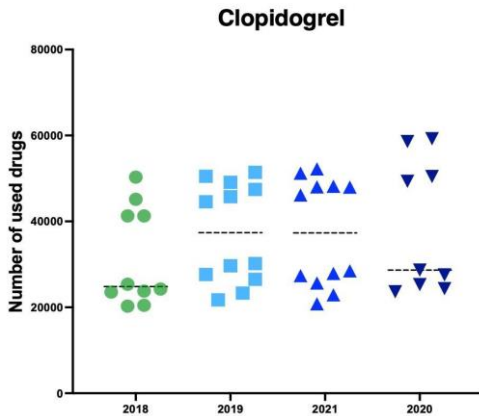


Figure 6. Clopidogrel experienced a slight increase which didn't reach the statistical significance

### Conclusions

The use of anticoagulants, as a necessary and effective treatment method, has played an essential role in preventing and reducing mortality regarding the thrombotic disease, a concomitant pathology of COVID-

We see that the consumption of this class of drugs has increased during the pandemic period in Albania. The chosen method for assessment of consumption has a special importance because it allows us to compare consumption in other countries.

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## **Populism in an Age of Challenge, Change and Chaos from the Eyes of Educators**

**Bob Barrett**

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### **Extended Abstract**

Albert II of Belgium noted “In these troubled times we live in, we should remain vigilant and see through populist arguments. Thus, who makes the arguments, leads the populist movement, as well as impacts the populace? Further, who truly represents the people – the politicians, educators, leaders, scientists, or ordinary citizens. While the Populism Movement was formed in the late 1800s in the United States, it also appeared across the globe to address the needs and concerns of the people. However, one has to wonder when new ideologies, theories, and lines of thinking start to appear – they should remain in the same framework and offer the same to all people. However, some leaders and groups change or adjust certain ways of thinking or leadership to meet their needs instead.

The central theme of today’s speech is to look at how populism may have had changed its form in the context of what was meant as the “voice of the people” to perhaps to adjust to the self-serving fulfillment of needs for certain groups and/or populist leaders. Further, we will look at how there was a new “checks-and-balances” presented at the onset of the Covid-19 Pandemic that started to question the way some populist leaders might have led their citizens and the world astray to a different meaning or understanding of populism, but rather to help with their own “self-fulfilling prophecy”. Consequently, the health concerns of the Pandemic outbreak caused the people to start thinking more about their leaders and governments in terms of how they handled the health concerns in terms of the availability of services, status of their economy since many people could not go to their physical work environments due to the outbreak, except for the first responders (i.e., doctors, police, emergency personnel, etc.), and educating the children to keep some semblance of normalcy in this age of chaos. The key element then and now is education – what is the true role and function of business and educational leaders during any crisis, as well as the rising of leaders who may not be the “true voice of the people.”

Second, while global leaders tried to “capture the day and their own agenda”, the big downfall which became evident over time was the denial of science and prevention of services in many areas due to leadership and/or government intervention. The Council on Foreign Relations featured the writings of Mounk that provided another perspective that we should keep in mind. “In the first months of the pandemic, many observers argued that countries led by populist leaders who distrust science and deny the severity of the pandemic would suffer worse outcomes. Perhaps, they speculated,

it might even slow or reverse the seemingly inexorable rise that the populists have enjoyed over the past decade.” (Mounk, 2021). Further, in this presentation, we will look at populism during the three states of the Pandemic from the onset, during, and after phases. Populism changed in different ways over the past decades, and many who believed in it started to rethink their own beliefs and value systems. Let us keep in mind what the Dalai Lama wrote “Our prime purpose in this life is to help others. And if you can't help them, at least don't hurt them.” Consequently, Mounk (2021) stated that “the transition from Donald Trump to Joe Biden has shown how much a competent government can, even in the late stage of the game, do to improve the situation.” However, what did we learn during this period or discover from this outbreak that Trump stated in January 2020 would not kill anyone and no more than 15 people would get sick from Covid-19? It would not be until almost 2 years later with the loss of 1 million American lives and multi-million personal losses worldwide that people would start to question whether what we knew as populism may have changed. Mounk (2021) summed up this thought in the following quote: “The price of populism has turned out to be even more deadly than we could have imagined before this terrible pandemic swept the world.” However, we need to remember the words of William Shakespeare: “Some are born great, some achieve greatness, and some have greatness thrust upon them.” Therefore, a new book has opened for the fields of business and education to write this new genre of lessons learned and best practices that were gained from the Pandemic period and to be the “true voices for the people.”

**Keywords:** Populism, Age of Challenge, Change and Chaos, Educators

## **Dimensions of John Rawls's Philosophy on the Implications of Politics in the Interpretation of Law in Postmodern Societies**

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### **Abstract**

Destabilization of the development of postmodern societies; under the constant influence of the consequences of the pandemic, wars in the region and natural disasters (earthquakes, floods, etc.), has highlighted the need for reflections on issues of law and its legal regulations. In this perspective, a series of problems are presented that are addressed to the state institutionalization of the notion of law and state policies that are drawn up by the states, which maintain their sovereignty in decision-making related to these issues. Balkan states, such as Albania; countries that aspire to the continuous demand for democratic political-economic-social stability wander between the role and influence of politics in the drafting, interpretation and implementation of the law; in accordance or not with the notion of justice. Such cases are reflected in the contemporary philosophy of law, such as the theory of John Rawls. For this reason, this paper aims to highlight: the theoretical political-justice implications according to Rawls, the reflection of these implications in concrete realities such as the Albanian state and the positive and negative impacts of these implications in relation to concepts such as freedom, equality, constitutionality and human rights.

In order to deal adequately and coherently with the aforementioned issues, this study has referred to the qualitative research method, as a phenomenological study. For this purpose, primary sources of Rawls's theory, statistical and historical-political-legal sources have been studied; as well as secondary sources of interpretation of these problems.

**Keywords:** justice, politics, Rawls, implications, Albania

## **The Hindsight Bias Effect and Investment Decision Making**

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### **Abstract**

One of the main problems facing investors is the incorrect tendency to believe in their ability to predict the performance of financial assets based on past performance. This article investigates the phenomenon of hindsight bias for data in the capital market, and in particular it examines the ability to make investment decisions for the short term based on Fischhoff's article (1975). In the experiment, each respondent was given a sum of money which he was supposed to invest in various financial assets based on their historical yield charts. The study examined two main tests, the first is whether there is a difference in the hindsight bias effect for different types of events, and the second is whether women are more led than men in making decisions. From the results of the first test, it was found that the average hindsight bias effect is positive and significant, and the performance of the test group is on average higher than the performance of the control group. From the results of the second test, strong evidence was obtained that the hindsight bias of women is higher than that of men in all types of events.

**Keywords:** hindsight, bias, investment, decision, making

## **The Relationship Between the Level of Income and the Sense of Ability**

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### **Abstract**

The sense of self-efficacy is a psychological trait that reflects a person's belief in his ability to achieve a goal or complete a task and in its power to establish a person's confidence. The purpose of the study is to examine the relationship between the level of income and the sense of ability according to socio-economic characteristics. For this purpose, a questionnaire was distributed among 200 respondents. The research findings indicate that there is a positive correlation between the level of income and self-efficacy at work, but no relationship was found between the level of income and social self-efficacy. In addition, it was accepted that older respondents and women have a higher level of ability.

**Keywords:** relationship, level of income, sense of ability



## **The story behind Black History Month and why it's celebrated in February: 2023 theme – Black Resistance**

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### **Abstract**

Every February, the U.S. honors the contributions and sacrifices of African Americans who have helped shape the nation. Black History Month celebrates the rich cultural heritage, triumphs and adversities that are an indelible part of our country's history. The month of February was chosen to coincide with the birthdays of Abraham Lincoln, the US president who issued the Emancipation Proclamation in 1863, and Frederick Douglas, an African American orator, social reformer, writer and abolitionist. The month-long celebration is a chance to acknowledge the historic achievements of Black Americans and to highlight their undeniable impact on American history. Game changers like Malcolm X, Rosa Parks and Martin Luther King, Jr. are some of the names we learn more about each February. But the celebration that is now Black History Month started long before these civil rights leaders made their mark. In 1915, historian Dr. Carter G. Woodson and minister Jesse E. Moorland founded the Association for the Study of Negro Life and History, now known as the Association for the Study of African American Life and History (ASALH). This group focused on researching the advancements made by people of African descent and, in 1926, sponsored the first Negro History Week. The current month-long observance began in 1926 as a week-long event sponsored by the Association for the Study of African American Life and History (ASALH). Since 1976, the month of February has been officially designated as Black History Month. The Black History Month 2023 theme, "Black Resistance," explores how African Americans have resisted historic and ongoing oppression, in all forms, especially the racial terrorism of lynching, racial pogroms and police killings since the nation's earliest days.

**Keywords:** African American history; Black History Month; Black Resistance.

## **Linguistic Problems of Albanian Computer Terminology**

**Esmeralda Stori**

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### **Abstract**

The object of study included in this scientific work is the computer terminology, which is penetrating from English language into the Albanian. During this penetration process, all the layers of Albanian language lexis are affected by several linguistic phenomena, which attract a special interest for scientific studies. These linguistic phenomena are non-positive features in the field of terminology due to their confusion for the language. Also because of the violation of one of the most important basic principles of terminology - "only one meaning", i.e. one term – one concept, which in relation to computer terms is almost impossible. Regarding the ongoing intensive penetration of these terms into the Albanian language, it is necessary to translate them into Albanian and establish its standardisation. This standardisation can be achieved only through a collaboration between linguists and experts in the field of informatics. Without this collaboration, we can not set the norms in this aspect of terminology. Introduction of these terms subject of norms in all textbooks in all Albanian language schools encourages the assimilation of such terminology. The sooner we have their translation and standardisation, the better these terms will be accepted. This scientific paper makes references to respective foreign literatures accompanied with concrete examples extracted from vocabularies of informatics published in all the Albanian-speaking territory.

**Keywords:** terminology, informatics, borrowing, Albanian, standardisation

## **Best Practices in Online Teaching (BPOT): Capturing Knowledge Management of a Post-Pandemic Recollection of Educational Immobilization in a Virtual World**

**Bob Barrett**

Prof. Dr., American Public University

### **Abstract**

While there has been an online educational debate of the virtues or laggings of online education between traditional educators versus online educators, the battle lines of division were soon eradicated with the onset of the COVID-19 Pandemic. While many people entered the field of online learning for several reasons, equally important, it should be noted that many chose to shun or downplay the role and function of online learning. However, life can change, as did the world of education upon outbreak of more cases of COVID-19 in 2020 and all industries and segments of work and education, and more were forced to retreat to home confinement without a limited number of people given the freedom to move about, whether of their own choice or not – sometimes by mandated actions one does not have the freedom to decide. Many people who once fought against online learning had to embrace it as this was the only form of education that could be endured during this period. Consequently, the paper will focus on the shared or common goals worked towards with the development of shared or best practices in online teaching. It should be noted that it is important for all educators to strive towards to document their experiences and practices during this period in order to add to the literature of various educational practices created at this time, as a part of their own recollection of actions shared, exchanged, developed, and implemented during this pandemic global timeframe.

**Keywords:** Online teaching, best practices, remote learning

## **Challenges of Prevention and Treatment of Pre-eclampsia and Eclampsia and Rapid Implementations of Recommendations is a Part of Great Success**

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Mbretëresha Geraldine Tirana , Albania

**Kleva Shpati**

Prof. Asoc. , Department of Pharmacy, faculty of medical science, Albanian University

### **Extended Abstract**

**Introduction:** Hypertensive disorders of pregnancy are an important cause of severe morbidity, long term disability and death among both mothers and their babies. According to WHO recommendations , preeclampsia is one of the most common medical complications of pregnancy. The management must counterbalance the risk-benefit ratio of induced preterm delivery and maternal-fetal outcome [1,2,3] .Most deaths due to pre-eclampsia and eclampsia are avoidable through the provision of timely and effective care to the women presenting with these complications. Optimizing health care to prevent and treat women with hypertensive disorders is the challenges [4,5,6]. The WHO Technical Consultation made a total of 23 new recommendations and I am briefing describing how they are implemented in our University clinic of Obstetrics and Gynecology ‘ Mbretëresha Geraldinë “ in Tirana.

The goal of my study is to compare the present guidelines and how to improve the quality of care and outcomes for pregnant women presenting with pre-eclampsia and its main complications (e.g. eclampsia)in our University clinic.

**Methods:** This is an review of knowledge-to-action project entitled GREAT (Guideline development, Research priorities, Evidence synthesis, Applicability of evidence, Transfer of knowledge) and were developed through standardized operating procedures in accordance with the process described in the WHO Handbook for guideline and how they are implemented in our university clinic.

**Results:** The data collected shows us that mostly of them already in power in implemented , but some other need to be implemented as a necessary part for the preeclampsia treatments. WHO recommends that in dietary calcium intake is low, calcium supplementation during pregnancy (at doses of 1.5–2.0 g elemental calcium/day) is recommended for the prevention of pre-eclampsia in all women, but especially those at high risk of developing pre-eclampsia. In our clinic all pregnant

woman with or not preeclampsia are intaking supplements with calcium, but all of the have not the doses recommended [7,8,9]. Another recommendation is low-dose acetylsalicylic acid (aspirin, 75 mg) for the prevention of pre-eclampsia in women at high risk. In our clinic this recommendation is prescribed , but the dosage as 75mg is not registered , so only 100mg is available in the market[10]. Women with severe hypertension during pregnancy should receive treatment with antihypertensive drugs, this is highly recommended and accepted through a very strict protocol. Magnesium sulfate is recommended for the prevention of eclampsia in women with severe pre-eclampsia in preference to other anticonvulsants, but anticonvulsants are still recommended a little. In women with severe pre-eclampsia, a viable fetus and before 34 weeks of gestation, a policy of expectant management is recommended, provided that uncontrolled maternal hypertension, increasing maternal organ dysfunction or fetal distress are absent and can be monitored by Doppler Ultrasounds[11,12,13,14]. This new recommendation should be included in the protocol treatments as mandatory through strictly protocols and experts signature as well in women with severe pre-eclampsia at term, early delivery is recommended thanks to the decision of Doppler's results should be in power.

**Conclusions:** Evidence-based management of pre-eclampsia and eclampsia can be achieved with the use of relatively inexpensive drugs. However, the guidelines and especially the WHO recommendations for this purpose should be noted that the following issues should be considered by applying the recommendations made in the present clinic protocol.

**Keywords:** pre-eclampsia, eclampsia, recommendation, doppler ultrasounds, pregnancy

## **Strengthen capacity for data collection, epidemiological analysis, monitoring and improve emergency response for communicable diseases and cross-national threats, in Albania.**

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### **Extended Abstract**

#### **Background**

The health system in Albania is mainly public. The state is the leading provider of health services, health promotion and prevention, and the diagnosis and treatment of diseases. The institutions are subordinated to the Ministry of Health and Social Protection. Their activity extends not only at central level but also regionally (according to the new administrative division) with their respective directorates. The Albanian system of epidemiological surveillance for infectious diseases is mandatory. The ALERT system of reporting infectious diseases system has been jointly implemented by the IPH and the WHO since 2000, creating an effective early warning system for infectious diseases in Albania. Different projects are implemented to improve the surveillance system in Albania.

**The overall objective** of this project is to support Albania in improving its ability to recognize and respond to public health emergencies, including serious public health threats of cross-border relevance.

**Methodology:** The implementation of this project was carried out in collaboration with three institutions, the Albanian Public Health Institute, the Albanian University and partner the Italian National Institute of Public Health.

**Results:** The result related to the evaluation of laboratory capacities. Questionnaires were submitted to 31 laboratories, 8 National Reference Laboratories and 23 District Laboratories (response rate was 74%). The sample included one respondent from each NRL, all located at ISHP (8 respondents) and 17/23 District laboratories. Among the respondent District laboratories, seven of them declared to be part of the Regional Directorate of Health, ten declared to be laboratories in a public healthcare facility. The area of Tirana includes the eight NRLs located at ISHP and two District laboratories.

All the 12 main administrative areas of Albania included at least one respondent laboratory. The 8 respondent NRLs at ISHP covered 30 diseases/conditions. At national level, no sentinel network of virology laboratories for surveillance of acute respiratory viral infections is in place; there is evidence that surveillance networks of clinical laboratories regularly report microbiological data to central national public health surveillance databases for at least one disease monthly.

**Keywords:** infectious diseases, preparedness and response, microbiological laboratories

## **The British Council's Overseas Educational Dynamism During the 1980s: A Promotion of British Influence**

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### **Abstract**

The "Education and Training" of overseas people is an important activity through which cultural agencies promote a positive image of their respective countries to serve the latter's political and economic interests. As regards the British Council, what was performed during the 1980s- when both the British domestic and the world scenes knew turbulences that affected British interests overseas- in this field as a contribution to international scholarship was limited compared with the immensity of the educational domain and the considerable funds absorbed by scientific research, the arrangement of a sponsored visit by a Noble Laureate to Eastern Europe for example, can have an immeasurable impact which may lead Britain to draw benefits in the long-term. The same benefits could be earned in developing countries through the granting of awards, for instance, to overseas students and trainees.

**Keywords:** British Council, Overseas Dynamism, Education and Training, Promotion of Influence.



## **The Concept of Populism: Between the Aspirations of Opponents and the Manipulations of Authoritarian Regimes**

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### **Abstract:**

Many contemporary researchers differed in defining the concept of the term “populism” because of unclear concepts that this term carries. It is initially referred to a group of political positions that emphasize the idea of the people-the elite- then it later developed to include every political movement or party or leader. And since this term was used to express many phenomena, studies found that it was misused, and it no longer meant what could be expressed by the opponents or the ruling regimes. Therefore, the term populism has often been used by the press as a slogan to express modern political or social movements, rulers and institutions rooted in democratic beliefs, that is, by using it in a pejorative way to strengthen the reputation of the opponents. In fact, through this apparent inconsistency in defining the term populism, one can wonder if it cannot be considered as a double-edged sword, that is, by using it by the opposition elite when expressing their demands, and by the ruling regimes when expressing their repressive policies and rejecting the demands of the people.

**Keywords:** Populism, People, Positions, Parties, Movements, Elite, Democracy, Opposition, Ruling Regimes, Liberation, Oppression, Socialism

## **Populism in Digital Societies: Challenges for Digital Sociology**

**Sandro Serpa**

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### **Body:**

Populism is a phenomenon that currently pervades the digital networks with a deep social and political visibility and consequent influence, being difficult to control in an increasingly digitalized world. Digital Sociology studies this phenomenon, among others, and can provide epistemologies, methodologies and analytical instruments that provide a better heuristic capacity in the comprehension of this phenomenon.

**Keywords:** digital societies, digital sociology, populism, preconceptions, biases representations

## Critical Literacy and Fake News

**Sandro Serpa**  
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### Body

The existence of fake news is a common phenomenon in digital social networks and with great success in the shares and visibility that are often given to them. In this presentation it is problematized that digital competences are central in this process but that the ability to demonstrate critical literacy is the key resource in preventing the production, consumption and sharing of fake news.

**Keywords:** critical literacy, digital literacy, fake news, internet social networks, literacies

## **Organizational Digital Culture and Leadership**

**Sandro Serpa,**

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### **Body**

The relationship between leadership and organizational culture is very tight. This presentation discusses the entry of a new variable in this equation, the digital, introducing the concept of digital culture and some of its implications in the organizations' management.

**Keywords:** digital culture, organizational digital culture, organizational culture, leadership, organization management

## Smart Education and Metaverse

**Sandro Serpa**

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### **Abstract**

Smart education appears as a transposition of the smart society to the teaching-learning practices that, respecting the specificities, prepare the students for their future professional and personal life. In this process, the metaverse emerges as a potential resource that, with advantages but also limitations, can be exploited for a more effective and efficient up-to-date teaching.

**Keywords:** active learning, constructivism, metaverse, new technologies, smart education,

## **Sustainable Development and Social Economy; A New Paradigm or Mere Utopia?**

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### **Abstract**

The question whether economic development can be sustainable is nowadays of fundamental nature. Prior assumptions made by economy classics, such as *Adam Smith*, regarding the “invisible hand” – being the key to economic growth and harmonic development of the market and the whole society – seem nowadays insufficient. This is due to resource limitations, climate changes, global warming and threats to biodiversity. Growth can no longer be viewed as unlimited. More and more popular in the public debate (agenda), also within the European Union (the European Commission), becomes in recent years the concept of sustainable development, social economy and social (inclusive) entrepreneurship. Social economy organisations are entities with different legal forms (social enterprises, cooperatives, mutuals, associations, foundations) which put social and environmental purposes first (“people and planet first”), reinvesting most of their profit back to the organisation or a social cause and embracing participatory (inclusive) governance. The debate on sustainable development involves and affects also traditional forms of for-profit business; a benefit corporation or the concept of sustainable corporate governance being the perfect examples of this phenomenon.

**Keywords:** social economy, social enterprise, cooperative, benefit corporation, sustainable development, sustainable corporate governance.