

Health Attitudes in Youth: a Cross-cultural Analysis of Associative Responses

Ставлення до здоров'я у молоді: крос-культурний аналіз асоціативних реакцій

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ABSTRACT

The purpose of this article is to make an empirical analysis of associative reactions of young people from Ukraine and Congo to the concept of «health».

Methods of the research. We used Linguistic Inquiry and Word Count (LIWC) software to empirically study the resulting associative responses. The survey resulted in 73 different associations, which were further analyzed by categories: emotions, cognitive processes, perception, relativity, etc.

The results of the research. According to the results of comparing associative reactions to “health” in students from Ukraine and Congo according to

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the criterion of emotions, we found that the indicators of emotional attitude to health are much higher among students from Congo (32.43) than among students from Ukraine (4.62); in the social context it is shown that the indicators of the social aspect of health are 1.54 among Ukrainian students and zero for Congolese; in the cognition context, the indicators demonstrate a greater tendency to cognitively assess one's own health in Congolese students (18.92) than in Ukrainian students (1.5); in the context of perception, Congolese youth demonstrate higher indicators 2.70 than Ukrainian students 1.54; in the context of biological accents, it was found that Congolese students more often turn to this topic when reviewing the concept of "health" (16.22) than Ukrainian students (1.54); in the context of motivation or need, such indicators were recorded only among Ukrainian students in terms of motivation in relation to health (1.54).

Conclusions. Empirical analysis of associations for "health" in groups of young people from Ukraine and Congo was conducted using LIWC-2015 and it demonstrated a number of differences. Ukrainian students are more likely to use less emotional associations that are more related to relativity and solving health problems, namely "Hospital", "medicine", "harmony", etc. Students from Congo are more likely to use associations with a more emotional response, mainly negative, as well as reactions related to health problems and their evaluation. Young people from Congo often use associations such as "illness", "evil", "fear", "good", etc.

Key words: health, associative experiment, youth, health literacy, LIWC-2015.

Introduction

In the context of rapid social, technological, and informational change, the issue of preserving and promoting the health of the younger generation is gaining particular importance. Youth represents the future of any nation, and its physical, mental, and social well-being directly influences the overall health of society. At the same time, young people are among the most vulnerable to harmful habits, stress factors, poor nutrition, and sedentary lifestyles.

Today, new behavioral models are emerging that combine an interest in healthy living with a simultaneous engagement in risky practices. Digitalization, social media, social instability,

and the influence of mass culture are significantly reshaping young people's perceptions of health.

The research on young people's attitudes toward their own health is highly relevant, as it doesn't only help identify current trends but also supports the development of effective prevention programs, educational strategies, and social initiatives aimed at fostering a health-conscious culture.

Thus, exploring this topic is a crucial step toward improving and safeguarding the health of younger generations, which will, in turn, positively affect the quality of life of society as a whole.

The issue of youth attitudes toward health has been the focus of active academic investigation in recent years. Contemporary research demonstrates that this phenomenon is shaped at the intersection of physical, mental, social, and digital contexts (Høgstad et al., 2024; Xu et al., 2023; Çinkil, Tural Büyük, 2023; Roşioară et al., 2024).

In the study by H. Høgstad, H. Kyrrestad, M. Rye and S. Kaiser (Høgstad, Kyrrestad, Rye, & Kaiser, 2023), adolescents' perceptions of mobile mental health applications were explored. The authors found that despite a generally positive attitude toward such tools, their actual use remained low due to accessibility and motivation barriers. These findings suggest that mobile health technologies, when tailored to youth needs, may serve as effective support tools for mental well-being.

The study by R. Xu, X. Bao, L. Shi, and D. Wang (Xu, Bao, Shi, & Wang, 2023) revealed a strong correlation between digital health literacy and young people's willingness to seek mental health support. The results indicated that adolescents with higher eHealth literacy were more open to preventive practices and professional help. This highlights the importance of digital competence in fostering responsible health attitudes among youth.

The study by Z. Çinkil and E. Tural Büyük (Çinkil, & Büyük, 2023) provides insight into the relationship between health literacy and eating behaviors among adolescents. The authors show that higher awareness of health principles is directly linked to

more positive attitudes toward nutrition. This emphasizes the importance of integrating health education into school curricula to promote healthy lifestyle choices.

A regional perspective is presented in the WHO (2024) report, which covers more than 40 European countries. It highlights a rise in school-related stress, a decline in family support, and an increase in emotional distress among adolescents, particularly girls. These findings point to the need for systemic changes in educational environments and the expansion of psychosocial support programs.

The Latvian study by N. Bezborodovs and A. Villerusa (Bezborodovs, & Villerusa, 2024) demonstrates that subjective health status, health behaviors, and engagement in risk behaviors are crucial factors influencing adolescent mental health. Their research underscores the importance of self-perception in overall health assessment.

The study by Egyptian researchers found that young people have specific health needs. The most frequently mentioned needs are psychological support, health education on various topics, including reproductive health and sexually transmitted diseases, and nutrition (Abd El-Mawgod et al., 2020).

Research shows that the changes triggered by the COVID-19 pandemic have revealed a willingness for most young people to consider virtual health services. Canadian researchers say many young people are not receiving such services despite their desire and clinical need. To meet the needs of diverse young people, diverse, identifiable, accessible and technologically robust virtual services are needed, perhaps with in-person options for some young people (Hawke et al., 2020).

British scientists focus on studying attitudes and awareness of mental health (Renwick et al., 2024). The main themes among young people were low levels of recognition and knowledge about mental health problems and illnesses, high levels of stigma, and low trust in professional health services, even when their effectiveness is recognized. The most relevant for research, scientists

suggest, are the themes of community-based mental health interventions that combine education and social contacts.

In conclusion, the reviewed literature emphasizes the multidimensional nature of youth attitudes toward health, where educational level, access to digital tools, social environment, and personal motivation all play critical roles. These factors must be considered when designing effective youth health support programs at both national and international levels.

Research specifically on cross-cultural attitudes and perceptions of the term health is often controversial and often illustrates the difficulties of such scientific explorations (Michaud et al., 2001). The study of health attitudes in British and Saudi young people demonstrated that there are unhealthy habits that appear to be a cross-cultural phenomenon, namely unhealthy lifestyles, such as increased screen time, and unhealthy eating habits, among adolescents living in urban areas (Al-Hazaa, 2013). Other studies have found a link between life satisfaction and health-promoting behavior across cultural groups. A common feature across all groups was that quitting smoking and being physically active were associated with higher levels of life satisfaction (Grant, Wardle, & Steptoe, 2009).

So, **the purpose** of this article is to make an empirical analysis of associative reactions of young people from Ukraine and Congo to the concept of “health”.

Methods of the research

The total sample of the study population was 58 people. 23 people were from the Republic of Congo (14 men and 9 women) and 35 people – from Ukraine (7 men and 28 women). The study subjects were offered the stimulus of the concept of “health” for young people from Congo in French, for Ukraine – in Ukrainian. The age of the participants was from 18 to 35 years.

We used Linguistic Inquiry and Word Count (LIWC) software (Pennebaker, Boyd, Jordan, Blackburn, 2015) to empirically study the resulting associative responses. The LIWC program

is an effective method for studying the emotional, cognitive, and structural components present in verbal and written speech samples of people. The program is actively used by scientists for applied research (Pennebaker, Chung, Frazee, Lavergne, & Beaver, 2014). LIWC contains two blocks – software and dictionaries. English and French dictionaries are built into the program. The Ukrainian dictionary for the program was developed by S.V. Zasiakin (Zasiakin, Bezuglova, Hapon, Matiushenko, Podolska, & Zubchuk, 2018).

LIWC allows you to obtain more than 80 indicators on linguistic, psychological, and grammatical scales. In the study, we will consider psychological and linguistic indicators. Most LIWC2015 variables are expressed as a percentage of the total number of words.

Results and their discussion

For convenience, the obtained associative reactions were analyzed by psychological categories. The indicators of associative reactions comparison to concept “health” among young people from Ukraine and Congo according to the emotion criteria are shown in Table 1.

Table 1

**Comparison of associative reactions to “health”
in young people from Ukraine and Congo according
to the criterion of emotions**

Category	Congo	Ukraine
Affective processes	32.43	4.62
Positive emotion	27.03	3.08
Negative emotion	8.11	0.00
Anxiety	2.70	0.00
Anger	0.00	0.00
Sadness	2.70	0.00

According to the results of comparing associative reactions to “health” in students from Ukraine and Congo according to the

criterion of emotions, we found that the indicators of emotional attitude to health are much higher among students from Congo (32.43) than among students from Ukraine (4.62). Young people from Ukraine often use such emotional reactions as acceptance, harmony. Young people from Congo often use the words good, normal. Differences in associative reactions in different groups were found, namely, young people from Congo more often demonstrate Negative emotion, Anxiety and Sadness, which is reflected in the reactions “tears” (peur), “wrong” (mal). Ukrainian students demonstrate a fairly positive attitude towards health.

The comparison of the obtained associations in the two groups by social criterion is shown in Table 2.

Table 2

**Comparison of associative reactions to “health”
in youth from Ukraine and Congo by social content**

Category	Congo	Ukraine
Social processes	0.00	1.54
Family	0.00	1.54
Friends	0.00	0.00
Female references	0.00	0.00
Male references	0.00	0.00

The comparison results of the associative responses to health among Congolese and Ukrainian students in the social context show that the indicators of the social aspect of health are 1.54 among Ukrainian students and zero for Congolese. In general, Ukrainian youth use a social context to describe health, mentioning people and family and its role in maintaining health.

The results of comparing associative reactions to “health” in students from Ukraine and Congo according to the criterion of cognitive processes are shown in Table 3.

According to the comparing results of associative responses to health among young people from Congo and Ukraine in the cognition context, the indicators demonstrate a greater tenden-

cy to cognitively assess one's own health in Congolese students (18.92) than in Ukrainian students (1.5). Congolese students often use responses like "nothing" (rien), "normal" (normale) and "psychological" (psychologique) etc.

Table 3

**Comparison of associative reactions to "health"
in students from Ukraine and Congo according
to the criterion of cognitive processes**

Category	Congo	Ukraine
Cognitive processes	18.92	1.54
Insight	2.70	0.00
Causation	0.00	0.00
Discrepancy	10.81	1.54
Tentative	0.00	0.00
Certainty	0.00	0.00
Differentiation	0.00	0.00

The next step in analyzing the responses obtained involved comparing associations with "health" in young people of different groups according to the criterion of Perception, i.e., with which sensory system health is most often associated. The results are shown in Table 4.

Table 4

**Comparison of associative reactions to "health"
in students from Ukraine and Congo according
to the criterion of Perception**

Category	Congo	Ukraine
Perceptual processes	2.70	1.54
See	0.00	0.00
Hear	0.00	0.00
Feel	0.00	0.00

According to the results of the comparison of associative responses to health among students from Congo and Ukraine in the

context of perception, Congolese youth demonstrate higher indicators 2.70 than Ukrainian students 1.54. Ukrainian students often perceive health as “harmony”. Congolese students especially use the word evil (mal). Congolese students use words with negative connotations.

The results of the association analysis using the criterion of biological processes are shown in Table 5.

Table 5

**Comparison of associative reactions to “health”
in students from Ukraine and Congo using the criterion
of biological processes**

Category	Congo	Ukraine
Biological processes	16.22	1.54
Body	2.70	0.00
Health	13.51	1.54
Sexual	0.00	0.00
Ingestion	0.00	0.00

According to the results of comparing the associative response to health among students from Congo and Ukraine in the context of biological accents, it was found that Congolese students more often turn to this topic when reviewing the concept of “health” (16.22) than Ukrainian students (1.54). Ukrainian students often use the word “Hospital”, emphasizing where you can improve your health. Congolese students often use the words “evil”, “illness”, “physical”, “body”, “life”, etc. In general, the results show that Congolese students place more emphasis on biological health problems, while Ukrainian students – on where you can get help.

The results of the needs assessment of health associations are shown in Table 6.

According to the results of comparing associative responses to health among students from Congo and Ukraine in the context of motivation or need, such indicators were recorded only among

Ukrainian students in terms of motivation in relation to health (1.54). Ukrainian students often use the word "Hospital", that is, students know how to solve needs in this area. Congolese students, meanwhile, do not use the word or response, according to the criterion of needs.

Table 6

Comparison of associative reactions to "health" in students from Ukraine and Congo according to the criterion of needs

Category	Congo	Ukraine
Drives	0.00	1.54
Affiliation	0.00	0.00
Achievement	0.00	0.00
Power	0.00	0.00
Reward	0.00	0.00
Risk	0.00	0.00

According to the criterion of time orientation, no associative reactions to "health" were found in students from Ukraine and Congo. That is, health is considered in terms of time assessment in young people.

The comparison of associative reactions to "health" in students from Ukraine and Congo according to the criterion of relativity is shown in Table 7.

Table 7

Comparison of associative reactions to "health" in students from Ukraine and Congo using the criterion of relativity

Category	Congo	Ukraine
Relativity	10.81	81.54
Motion	0.00	0.00
Space	0.00	1.54
Time	0.00	0.00

According to the results of comparing associations among young people from Congo and Ukraine using the criterion of

relativity, it was found that Ukrainian students often use words that reflect relations, relationships between objects and phenomena. Ukrainian students often use such reactions as “life”, “medicine”, “strength”, etc. Congolese students often use the word “normal”.

The results of the comparison of associations with “health” in young people from different countries were also carried out according to broad thematic categories. The results are shown in Table 8.

Table 8

Comparison of associative reactions to “health” in students from Ukraine and Congo according to the criterion of global thematic categories

Category	Congo	Ukraine
Work	1.54	2.70
Leisure	1.54	2.70
Home	0.00	0.00
Money	0.00	0.00
Religion	0.00	0.00
Death	0.00	0.00
Work	0.00	0.00

According to the results of a comparison of health associations among students from Congo and Ukraine and according to broad thematic categories we found that young people perceive health through the prism of concepts of work and leisure. Students from Ukraine focus more on these categories (2.70) using the words “entertainment”, “hospital”, while Congolese students (1.54) only through the concept of “sports”.

Conclusions

The theoretical and empirical analysis of the attitude towards health among representatives of two countries (Ukraine and Congo) demonstrated common and distinctive features in the understanding of the concept under study.

Analysis of theoretical sources demonstrates the interest of young people from different countries in the topic of health, the need for education and the introduction of youth-friendly centers where comprehensive support would be provided, because young people do not always want to communicate with a family doctor. In addition, other cross-cultural studies demonstrate trends that quitting smoking and playing sports not only improve health, but also increase the level of life satisfaction in young people.

Empirical analysis of associations for "health" in groups of young people from Ukraine and Congo conducted using LIWC-2015 demonstrated a number of differences. Ukrainian students are more likely to use less emotional associations that are more related to relativity and solving health problems, namely "Hospital", "medicine", "harmony", etc. Students from Congo are more likely to use associations with a more emotional response, mainly negative, as well as reactions related to health problems and their evaluation. Young people from Congo often use associations such as "illness", "evil", "fear", "good", etc.

The conducted study has many limitations that can be eliminated by increasing the sample, increasing the stimulus material on the topic of health, etc. However, the results obtained open up promising areas of research on health awareness, on the accessibility of such services, etc.

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Коструба Наталія. Ставлення до здоров'я у молоді: крос-культурний аналіз асоціативних реакцій.

Мета нашого дослідження – здійснити емпіричний аналіз асоціативних реакцій молоді з України та Конго на поняття «здоров'я».

Методи дослідження. Для емпіричного вивчення отриманих асоціативних відповідей ми використовували програмне забезпечення *Linguistic Inquiry and Word Count (LIWC)*. В результаті опитування було виявлено 73 різні асоціації, які були додатково проаналізовані за категоріями: емоції, когнітивні процеси, сприйняття, відносність тощо.

Результати дослідження. За результатами порівняння асоціативних реакцій на «здоров'я» у студентів з України та Конго за критерієм емоцій ми виявили, що показники емоційного ставлення до здоров'я значно вищі у студентів з Конго (32,43), ніж у студентів з України (4,62). У соціальному контексті показано, що показники соціального аспекту здоров'я становлять 1,54 в українських студентів та нуль у конголезьких. У когнітивному контексті показники демонструють більшу схильність до когнітивної оцінки власного здоров'я у конголезьких студентів (18,92), ніж в українських студентів (1,5). У контексті сприйняття конголезька молодь демонструє вищі показники (2,70), ніж українські студенти (1,54). У контексті біологічних акцентів було виявлено, що конголезькі студенти частіше звертаються до цієї теми під час розгляду поняття

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«здоров'я» (16,22), ніж українські студенти (1,54). У контексті мотивації чи потреби такі показники зафіксовані лише серед українських студентів щодо мотивації стосовно здоров'я (1,54).

Висновки. Емпіричний аналіз асоціацій щодо «здоров'я» в групах молоді з України та Конго було проведено за допомогою LIWC-2015 і він продемонстрував низку відмінностей. Українські студенти використовують менше емоційних асоціацій, які більше пов'язані з відносністю та вирішенням проблем зі здоров'ям, а саме «лікарня», «ліки», «гармонія» тощо. Студенти з Конго частіше використовують асоціації з більш емоційною реакцією, переважно негативною, а також реакції, пов'язані з проблемами зі здоров'ям та їх оцінкою. Молодь з Конго часто використовує такі асоціації, як «хвороба», «зло», «страх», «добро» тощо.

Ключові слова: здоров'я, асоціативний експеримент, молодь, медична грамотність, LIWC-2015.

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