SOCIAL AND ECONOMIC PRINCIPLES OF HEALTHY LIFESTYLE FORMATION AMONG EMPLOYEES OF HIGHER MEDICAL EDUCATION INSTITUTIONS

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Abstract. In recent years, there has been a sharp decline in the population of Ukraine. For this reason, the promotion of measures aimed at maintaining and improving health is becoming increasingly important. Its implementation requires financial and social support from the state, which is essential. The purpose of this study is to determine the impact of economic and social factors on the adherence to a healthy lifestyle by medical school staff and future doctors. Methodology. The study involved 73 respondents in the age groups of 22-24 and 25-35, of whom 37 were students of 4-6 years of KNMU; 26 were KNMU educators and 10 were educators from V. N. Karazin KNU. The sociological research was conducted by means of a survey. The questionnaire was distributed using Google forms in the relevant groups on Viber, Telegram and Instagram. Results. When analysing the data of the study, the following data were obtained: the observance of a healthy lifestyle is mainly influenced by the lack of financial support, the lack of preferential conditions for the purchase of season tickets or sports equipment. In addition, there is a lack of safe places for mass sports and/or physical culture. Another factor that has a significant impact on the observance of a healthy lifestyle is insufficient health education, as none of the respondents mentioned the implementation of educational activities to clarify the importance and benefits of maintaining and improving one’s health and the degree of responsibility that the individual bears. At the same time, the data obtained point to a number of issues that need to be addressed: firstly, it is necessary to improve the legal framework to ensure compliance with a healthy lifestyle; secondly, it is essential to implement measures to support and promote the maintenance of health, in particular the abandonment of bad habits. It is also advisable to provide funding for the creation of safe places for mass sports/physical culture and assistance in the provision of subscriptions and necessary sports equipment on preferential terms. Conclusion. Thus, summarising the above information, it can be concluded that the issue of supporting a healthy lifestyle requires close attention from the state, justification for attracting economic resources and society as a whole. The data obtained are a prerequisite for the development of measures to promote a healthy lifestyle, in particular the promotion and clarification of the positive consequences of observing and maintaining health, with mandatory visual confirmation and clear justification of this statement. At the same time, in order to implement this line of action, it is necessary to take into account the experience of the countries of the European Union, especially with regard to the improvement of the regulatory and legal framework.

Keywords: economic factor, health education, healthy lifestyle, future doctors.

JEL Classification: I10, I15, P46

1. Introduction

The last decade has been characterised by a trend of population decline in Ukraine. One of the factors that has led to the rapid decline in the population is the preponderance of deaths over births. As a result, Ukraine’s mortality rate has risen among European countries in recent years. Ukraine is among the top twenty countries in terms of population ageing (according to statistical studies, it ranks 11th in the world in terms of the proportion of the population aged 60 and over). According to projections, Ukraine’s population is decreasing every year:
and about 10% to the country’s healthcare system. At the same time, the vast majority of researchers believe that a person’s lifestyle has the largest share among all factors (Granic, et al., 2019).

It is equally important to determine the relationship between lifestyle and health, which, according to many authors, is expressed in a healthy lifestyle.

3. Components Including a Healthy Lifestyle (HL)

More and more scientists and doctors agree that in order to prevent the development of various pathological processes and diseases, it is necessary to maintain a healthy lifestyle (Aravena, 2023). At the same time, there are many questions as to which components should be included in food supplements. Many researchers have proved that a healthy lifestyle consists of: adherence to an optimal physical activity regime, healthy eating, reducing the harmful effects of stress, giving up bad habits, as well as quality and sufficient sleep, and safe working conditions (Dominguez, et al., 2018; McMaughan, et al., 2020; Nekouei Marvi Langari, et al., 2023).

Some researchers believe that the most important component of a healthy lifestyle is the consumption of healthy foods, i.e., foods that are not genetically modified, in addition to limiting the use of fats and oversalted and heavily seasoned dishes. However, there are radically opposing opinions that it is more important to follow a programme of optimal physical activity and to avoid the harmful effects of stress factors (Chatterjee, et al., 2021; Seng, et al., 2023).

3. Factors Determining Adherence to a Healthy Lifestyle

Despite the different views on the importance of each of the components of a healthy lifestyle, they are united by the fact that an economic factor is necessary for their implementation. It is worth noting that not only the economic factor plays a role in the implementation of a healthy lifestyle, but also effective communication, especially between representatives of the educational and medical spheres (Li, et al., 2020; Sidossis, et al., 2021; Zaman, et al., 2019). This is particularly important because educators and doctors play a key role in familiarising the population with the basic principles of a healthy lifestyle (Kaspy et al., 2022; Larose et al., 2023). Among the most effective tools, the promotion of healthy lifestyles is the most important.

Therefore, it is extremely important and relevant to determine the degree of influence of the economic factor on the promotion of a healthy lifestyle among employees of higher medical education institutions.

The purpose of this study was to determine the impact of economic and social factors on the
adherence to a healthy lifestyle by medical school staff and future doctors.

4. Materials and Methods

The study involved 73 respondents in the age groups of 22-24 and 25-35. Of these, 56 respondents were women, 17 were men; 37 were students of the 4th-6th year of medical faculties, 26 were educators from Kharkiv National Medical University (hereinafter referred to as KNMU) and another 10 were educators from the Medical Faculty of V. N. Karazin Kharkiv National University (hereinafter referred to as KNU). To achieve the research objective, a sociological study was conducted to determine the degree of influence of the economic factor on the adherence to a healthy lifestyle by employees of medical education institutions and future doctors. For this reason, special standardised questionnaires were developed, the content of which met the following requirements: 1) the purpose of the survey and the specificity of the contingent of respondents were taken into account; 2) a simple structure of the questionnaire was used (preamble, general information about the respondent, characteristics of his health, clarifying questions); 3) the questionnaire consisted of 21 questions in order to maintain interest in the questionnaire by meeting the requirements for the number and quality of the proposed questions (they should be clear, concise, correct and understandable), which allowed respondents not to spend too much time filling in the questionnaire. Taking into account all the requirements, the first stage of the study was to develop a questionnaire consisting of three interrelated blocks. The first block contained "general information about the respondent", which included not only the basic demographic data about the respondent, but also the most important (taking into account the specifics of this scientific work) characteristics of the conditions and lifestyle of the respondent, necessary to create a basis for further determination of cause and effect relations between the respondent's personality and the influence of the factors necessary for maintaining a healthy lifestyle and their impact on his health. The second block of questions clarifies the "characteristics of health", which in turn makes it possible to establish the respondent's subjective assessment of his or her own state of health, although it should be noted that the data obtained are not always really related to the adherence/ non-adherence to a healthy lifestyle. The last block contained "questions for clarification", which helped to confirm / refute existing doubts about the correctness of the answers in the previous block. To distribute the questionnaire, a Google form was created and used to conduct the survey. During the survey, it was explained to all respondents that participation in the survey was anonymous and based on the principles of voluntary cooperation, with full confidentiality of personal data guaranteed, and the extent of the researchers' responsibility for failure to comply with this requirement was explained, as well as why and who conducted the survey.

After completion, all questionnaires were checked for the correctness of the data entered, followed by the primary processing of their content. The hierarchy of individual survey results was taken into account, according to which the corresponding inversion of scores was carried out (E = 100, D = 75, C = 50, B = 25, A = 0), which allowed determining the degree of influence of the economic factor on the state of health of the population.

4. Findings

When analysing the results of the study of the impact of the economic factor on the adherence to a healthy lifestyle among educators and the formation of healthy lifestyle skills among students, very interesting data were obtained.

Thus, the average monthly income in the families of the surveyed respondents ranged from 6,000 to 10,000 UAH (see Figure 1). The smallest number of respondents in all survey groups indicated that their average monthly family income was less than 30,000 UAH.

When determining the share of income that respondents spend on healthy eating, it was shown that medical students spend more than 60% on healthy eating, and the following data were found (see Figure 2).

In most cases, KNMU educators were ready to spend a smaller share (less than 20%) on healthy food compared to other respondents. At the same time, the majority of respondents said that they often and very often have enough money for spontaneous purchases and entertainment, and most of them are people with higher education (see Figure 3).

In addition, the smallest number of respondents indicated that they were unable to make spontaneous purchases or spend money on entertainment, and this was mainly true for those with higher education.

The analysis of answers to the question about the possibilities of earning money independently showed the data illustrated in Figure 4.

The largest percentage of respondents indicated that they often had the opportunity to independently earn money, especially in the groups of educators and students of KNMU; educators of KNMU often earned money on their own; the answer "very often" was mostly indicated by students of KNMU; the answer "always" was mostly chosen by educators of KNMU and V. N. Karazin KNU.
Equally important data was obtained when determining the consumption of unhealthy food (fast food, fatty food) by respondents, the results of which are shown in Figure 5.

When analysing the responses to unhealthy food consumption, the majority of medical students said that they eat it often; fast food and fatty foods are "sometimes" consumed by educators and students of KNMU.

A study of the motivations for eating fast food showed that they differed significantly among the different groups studied (see Figure 6).
Therefore, students mainly motivated this by laziness, inability to cook and lack of necessary equipment, while educators of KNMU and V. N. Karazin KNU – by lack of free time.

The study of the impact of bad habits on the health of respondents showed that students of KNMU suffer from smoking the most (see Figures 7–8), as well as employees of KNMU and V. N. Karazin KNU,
with a higher percentage of smokers among educators compared to students.

The study of the motives that led students and staff of higher education institutions to smoke revealed the following data, see Figure 9.

Among students, the most important factors were the influence of the environment, stress, boredom, alcohol consumption and habit. The analysis of motives among educators showed that stress plays the most important role among educators of KNMU and
V. N. Karazin KNU. Since smoking is in some cases closely related to alcohol consumption, the frequency of alcohol consumption by employees and students of higher education institutions was determined, see Figure 10.

The majority of students and educators reported that they sometimes drink alcohol, with the number of those who do not drink alcohol at all and those who drink alcohol sometimes being almost the same among educators as in other groups.

At the same time, an assessment of the reasons that led to the consumption of alcoholic beverages showed that the most important factors among students were uncertainty in life (16.43%), boredom in 10.96% of cases, financial instability (8.22%), advertising in 6.85% of respondents, smoking in 5.48% of cases and meetings with friends in 2.74% of cases.

![Figure 7. Smoking among students of higher education institutions](image1)

*Note: based on the authors' research*

![Figure 8. Smoking among employees of higher education institutions](image2)

*Note: based on the authors' research*
Among KNMU educators, stressful situations at work (9.59% of respondents), boredom (8.22%), conflicts with family/friends (5.48%), financial instability (4.11%), as well as habit and meeting friends (2.74% of respondents each) and smoking and weekends and/or non-working days (1.37% of respondents each) were equally important as motivations for alcohol consumption. At the same time, stressful situations (in 4.11% of cases), conflicts with friends and bad habits (in 2.74% of cases), as well as meetings with friends, weekends and/or holidays and smoking (in 1.37% of cases) were also important for the educators of V. N. Karazin KNU.

The self-assessment of physical activity revealed the following data, see Figure 11.

The data obtained during the analysis of respondents’ answers show that the majority of respondents assess their physical activity as very low and low. This trend has been maintained both among educators and students of higher education institutions. Only a small number of respondents described their physical activity as moderate.

The study of the causal factors affecting physical activity among students of higher education institutions found that: professional activity in 19.17% of cases, health status in 10.96% and distance from places for relevant activities (gyms, playgrounds, etc.) – 9.59% of respondents, lack of funds to purchase a subscription (6.85% of respondents), 2.74% have bad habits and 1.37% of respondents indicated obesity. Among the educators of KNMU, professional activity was also of leading importance (12.33% of respondents), distance from places for sports (10.96% of respondents), lack of funds to purchase a season ticket (4.11%), health and environmental impact (2.74% of respondents), and overweight and bad habits (1.37% of respondents). At the same time, among the educators of V. N. Karazin KNU, the leading importance was given to: health (5.48% of the surveyed respondents), professional activity (2.74%), approximately the same proportion is given to (habit, overweight, distance from places suitable for sports and lack of money (1.37% of the surveyed respondents indicated the purchase of a season ticket)).

Determining the causal factors that motivated students and employees of higher education institutions to engage in physical exercises and mass sports revealed that: among KNMU students, it was mainly the desire to improve health in 19.16% of cases, habit in 10.96%, the close location of the sports facility in 9.59% of respondents, the desire to lose weight and the opinion of others in 5.49% of the surveyed subjects.

Among KNMU educators, it was the close location of the sports facility in 10.96% of cases, the habit and desire to improve their health in 8.21% of cases, respectively, the opinion of others in 5.49% of cases and the desire to lose weight among 2.74% of respondents. The lecturers of V. N. Karazin KNU primarily pointed to the desire to improve their health and habits, the opinion of others and the close location of the sports facility in 2.74% of cases.
respectively, as well as the desire to lose weight in 1.37% of the surveyed lecturers.

The study of the amount of time it takes to get to the location of the sports facility showed that the majority of respondents among KNMU students spend 30–40 minutes, 21.93% of respondents indicated this; 9.59% indicated that they spend 1–2 hours, the same number of respondents (8.21%)
Among the surveyed students of KNMU, 21.92% noted an improvement in 1–2 weeks, 16.44% – in six months after starting regular physical education classes; 10.96% of respondents in 1–2 months, and 1.37% only in a year.

Among educators, 13.7% of respondents noticed the first positive changes in 1–2 weeks, 9.59% of respondents noticed them in 1–2 months, 8.21% noticed them in six months, and the smallest number of respondents (4.11%) noticed them in a year. Educators of V. N. Karazin KNU identified such changes after 1–2 weeks (5.48%) and 1–2 months (5.48% of the surveyed respondents), as well as after six months, 1.37% and 1.37% of the surveyed educators noted them after a year.

When assessing the possible harmful effects of various factors: 35% of respondents attributed the most important role to fatty foods; 33% of respondents attributed importance to the negative role of fast food consumption; 21% of respondents – to alcohol; 7% identified the negative impact of cigarettes, another 2% – e-cigarettes, and 2% – the consumption of low-alcohol drinks.

In addition, in the course of the study, respondents were asked to assess the degree of influence of each of the items on their commitment/non-commitment to a healthy lifestyle. The following results were obtained: 40% of respondents believe that public authorities are most responsible for this, 16% noted the importance of local government, another 15% pointed to the main role of NGOs, while 13% of respondents identified the main role of employers and 12% believe that the individual is primarily responsible for his or her health, a minority of respondents (4%) identified the influence of others.

Meanwhile, when assessing the degree of accessibility of ready-made healthy foods offered by public catering establishments, the following data were obtained: 43% of the surveyed respondents indicated the absence of such dishes in the menu of public catering establishments; 32% noted the availability of such dishes on free market; 15% of respondents claimed that they were unavailable due to their high cost and 10% of the surveyed respondents confirmed that they do not eat such dishes at all.

Availability of healthy food products in retail outlets: the majority of respondents (44% of respondents) indicated that they are freely available; 31% of respondents indicated limited availability due to high cost; 20% of respondents indicated limited access due to the lack of such products in the retail outlets at their place of residence, and another 5% of respondents indicated limited access due to poor quality of products.

The assessment of the impact of the availability of places for physical education and mass sports revealed that 40% have limited access due to the high cost of a membership; in 31% of cases, restrictions are related to the lack of sports facilities at their place of residence, another 19% confirmed that they have...
free access, and 10% indicated a lack of motivation to engage in mass sports and/or physical education.

According to the respondents, the greatest influence on the transition to a healthy lifestyle is persuasion in 51% of cases, support for 17% of respondents, incentives for 16%, 9% of respondents say it is a ban and 7% indicate the effectiveness of coercion.

The data obtained in the course of the study clearly indicate the imperfection of the system of healthy lifestyle promotion. The main factors affecting this are insufficient financial support from the state and imperfect development of the legislative framework for promoting healthy lifestyles. The respondents say that one of the problems that prevent them from adhering to an optimal physical activity regime is, first of all, their financial inability to purchase a gym membership and the lack of preferential conditions for purchasing memberships. In addition, another factor that hinders a healthy lifestyle is the remoteness of safe places for sports from the respondent's place of residence, which indicates insufficient government attention to this issue. All this is extremely important in the context of a declining population. As life expectancy is on the decline, it is therefore crucial to implement measures aimed at preserving health. It is necessary to work together to promote the positive role of a healthy lifestyle at the level of families, schools, higher education institutions, and employers. At the same time, the employer's lack of understanding of its role in supporting the healthy lifestyle of its employees remains an unresolved issue. None of the respondents said that neither the employer nor the trade union committee had taken any measures to promote the occupational health and safety system or to support employees in switching to it. This, in turn, indicates the low attention of society and each individual to this issue.

7. Conclusions

Based on the findings of this study, it can be concluded that the issue of healthy lifestyles in Ukraine remains open. It is safe to say that the origins and solutions to this issue should be sought in the economic and social spheres. In addition, it is worth paying attention to the promotion of a healthy lifestyle among young people. After all, young people are the future of Ukraine. This is confirmed by the data of the research conducted, which showed that the factors that prevent people from leading a healthy lifestyle are the inability to purchase a sports subscription, the inability to purchase sports equipment and, above all, the lack of safe places to play sports. At the same time, research data indicate low motivation to maintain one's health. In addition, it is worth paying attention to the promotion of a healthy lifestyle among

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**Figure 12. Changes in the health status of students and staff of higher education institutions after regular physical education classes**

*Note: based on the authors' research*
young people. After all, young people are the future of Ukraine.

To achieve this goal, it is necessary to take measures to promote a healthy lifestyle, including physical culture and mass sports, healthy food advertising and combating bad habits. To achieve this, the legal framework needs to be improved to ensure greater coordination between government agencies. Particular attention should be paid to combating bad habits among young people. To do this, it is necessary to conduct educational activities to explain the harms of drinking both alcoholic and low-alcohol beverages and smoking tobacco, which can be done through thematic conferences, roundtables, etc. In addition, it is extremely important to inform young people about the relationship between their lifestyle and their health and the health of their future children.

The state should provide financial support for measures aimed at promoting a healthy lifestyle, such as opening safe areas for physical education, assistance in purchasing season tickets for sports facilities, swimming pools, etc. on preferential terms, as well as holding thematic events on television that tell about the measures necessary to maintain health, showing social videos that tell about the benefits of adhering to the basic principles of a healthy lifestyle.

At the same time, it is necessary to activate society through systematic work in labour collectives to support the transition to a healthy lifestyle, as well as to explain to entrepreneurs the relationship between the health of their employees and the economic performance of their business. Explaining to the heads of structural units the importance of supporting their subordinates in maintaining a healthy lifestyle; for this purpose, a system of small incentives for employees who adhere to it can be introduced. In this context, it is necessary to take into account the experience of the European Union, especially with regard to changes at the legislative level.

In addition, given the research evidence that stress is one of the factors contributing to the acquisition of bad habits, it is extremely important to take measures to combat it. In this case, special attention is paid to non-medical means of dealing with stress, namely, conducting special trainings with the involvement of certified specialists with a visual demonstration of the necessary techniques.

Another factor that hinders healthy lifestyles, namely the consumption of unhealthy food, is the lack of time to prepare healthy meals, so to address this factor, it is also necessary to conduct time management courses to teach employees and students of higher education institutions how to effectively allocate their working and personal time.

All of these measures require close attention from the state and society, as it is on this that the health of not only the current generation of people depends, but is also an investment in the future of Ukraine.

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