

FACTORS WHICH DETERMINE POPULATION BEHAVIOR STRATEGIES IN THE SPHERE OF HEALTH PROTECTION (SOCIOLOGICAL ANALYSIS)

Tatiana Valerievna Gutik^{1*}, Irina Anatolievna Gareeva²

^{1,2}Pacific National University, Khabarovsk, Russia.

Email: ^{1*}tatiana.gutik@mail.ru, ²gar_ia@mail.ru

Article History: Received on 13th January 2020, Revised on 01st March 2020, Published on 27th March 2020

Abstract

Purpose of the study: The study aims to identify factors that influence the formation of population behavior strategies in the sphere of health protection.

Methodology: A sociological study in the form of a questionnaire-based survey (25 questions, 118 investigated characteristics) was conducted. We used Microsoft Excel (2010) and SPSS STATISTICS for the processing of empirical data. Mean values and standard deviations were calculated. Contingency tables and correlation analysis were applied.

Main Findings: The results of the study showed low activity among respondents in maintaining and improving their health, due to factors such as lack of medical awareness and legal medical literacy, misunderstanding of health risks, and lack of trust in medical care. Gender peculiarities were revealed. The dependence of forming population behavior strategies in the sphere of health on age, social status and income was established.

Applications of this study: The results of this study can be used by social institutions that implement public policy in the sphere of public health preservation and promotion. The article will be useful for experts in the sociology of the health sphere.

The novelty of the study: The analysis of the Khabarovsk city population behavior in the sphere of health protection was done based on empirical research. We studied population behavior strategies, which are based on certain self-preservation actions as well as on various socio-demographic groups of the population. We identified factors that influence the formation of these strategies.

Keywords: *Health Protection, Behavior Strategies, Sociological Analysis, Health Threats, Preventive Behavior, Risky Behavior.*

INTRODUCTION

Currently, one of the priorities for the development of the healthcare system in Russia is public health preservation and promotion through the formation of a healthy lifestyle and optimization of preventive actions ([Ulumbekova, 2018](#)).

There are two levels of health: public and personal. Public health means the health of the population of a country, a region, a settlement. Personal health is the health of a particular person. It is each member of the social state of health that generally shows the level of public health which is determined by such indicators as birth rate, mortality, average life expectancy, morbidity, disability, level of physical development.

The concept of self-preserving behavior determines the number of factors, which influence personal health, such as genetic predisposition, health care efficiency, socio-demographic and economic characteristics of the population and living conditions, environmental living conditions, health-related behavior, socio-cultural factors expressed in national, family traditions related to health and its promotion. The main idea of this concept is that health-related behavior intermediates the influence of other groups of factors ([Shilova, 2012](#)).

In most developed countries the system of public health protection is based on the strategy of health protection and disease prevention and a person plays an active role in it ([Haun et al., 2014](#); [Barreto et al., 2011](#)).

In the Russian Federation, a lot is done in this sphere. In Presidential Address to the Federal Assembly of the Russian Federation on March 1, 2018, a national goal was set to increase the life expectancy of the population from the current 73 to 78 years by 2024 and to 80 years by 2030. "... At the same time, life expectancy levels for people living a healthy, active and full life, when they are not hampered and pinned down by illness, must grow faster than planned ..." ([Presidential Address, 2018](#)). These goals are also stated in the passport of the new Priority Project "Formation of a healthy lifestyle" and in the Executive Order of the President of the Russian Federation No. 204 of May 7, 2018 "On National Goals and Strategic Objectives of the Russian Federation through to 2024" ([Passport of the Priority Project, 2017](#); [Executive Order No. 204, 2018](#)).

However, some factors influence the formation of responsible behavior in the sphere of health protection, but they are not sufficiently taken into account when organizing health-saving activities for various population groups ([Zelionko et al., 2017](#)).

Actions and attitudes of people to their health aimed at health preservation and protection, an increase of life expectancy can be considered as positive strategies in the sphere of health protection, the result of which will be a high level of personal health. Lack of responsibility and actions in the sphere of health protection forms negative behavior strategies among the population, leading to loss of health and reduced life expectancy.

Therefore, the goal of the sociological study conducted by the authors in 2019 in the city of Khabarovsk was to identify strategies for the behavior of the population to preserve and promote health and to determine factors that influence the formation of this behavior.

LITERATURE REVIEW

The sociological study of health is represented by the works of both foreign and Russian researchers. The study of health using a sociological approach began in the works of E. Durkheim, T. Parsons, E. Hoffman, etc. In his works, W. Cockerham describes the influence of gender, age, nationality, social identity, lifestyle and personal responsibility of a person on his health (Cockerham et. al., 1997). P. Bourdieu introduced the term “habitus”, with the help of which he explains the formation of people's attitude to health, determined by socio-cultural norms and lifestyle of individual social groups (Bourdieu, 1989).

Scientists studied the attitude of the population to their health much earlier. The concept of self-preserving behavior was developed in the works of I.S. Vyalov (2011), L.S. Shilova (1987), G.I. Ivakhnenko (2006), V.Ya. Shklyaruk (2011), E. I. Rasskazova et.al.(2015). In their works, the structure and system of indicators of self-preserving behavior were developed and the factors mediating it were determined.

In the researches of A.I. Antonov (1998), I.V. Zhuravleva (2005) the respondents' attitude toward the ideal, desired and expected life expectancy and gender identity was described as indicators influencing the behavior of an individual.

In her works T.V. Shushunova notes the nature of motivation and the level of orientation in the formation of health-saving behavior (Shushunova, 2010).

L.S. Shilova, studying the behavior of the population in the field of health, revealed that health behavior strategies consist of four components that differ in direction and outcome: preventive behavior; risky behavior; behavior associated with the control of existing chronic diseases; behavior when medical treatment is needed. In real life, the elements of all four components determine the general strategy of the person's behavior at a certain point in time (Shilova, 2012).

In her study Korolenko, A.V. took into account the key elements of self-preserving behavior (needs, attitudes, motives, actions) in a unified system. As a result, she points out that people have a low motivation to care about their health. She thinks that passivity in the application of self-preservation measures is connected with the use of self-destructive actions (bad habits, unhealthy diet, and low physical activity) (Korolenko, 2018).

In 2017, E. N. Novoselova conducted a study that revealed the gender characteristics of health and a healthy lifestyle (Novoselova, 2017).

In 2018-2019, the Department of Family Sociology and Demography of Sociological Faculty at the Moscow State University named after M.V. Lomonosov conducted an interregional sociological and demographic study of the values of the family-child lifestyle SEDOJ-2019. The study was conducted in Moscow and among the urban population of six constituent entities of the Russian Federation. Within the framework of this research, issues such as self-assessment of health, attitude to a healthy lifestyle, and behavioral health practices were studied. Researchers note the role of the family in shaping the attitude of young people towards their health, which in the future is expressed in adults as the desire and need to be healthy (The family-child lifestyle values (SeDOJ-2019), 2020).

Despite the efforts of researchers in this area of scientific knowledge, population behavior strategies taking into account the implementation of specific self-preservation actions, as well as various socio-demographic groups of the population have not yet been studied. There are practically no scientific justifications for improving the activities of state authorities and institutions at the level of a constituent entity of the Russian Federation aimed at creating responsible population behavior in the sphere of health protection.

According to Russian Public Opinion Research Center, when ranking life values, Russians often put health in the first place (National monitoring of the health of Russians, 2017). The authors' pilot study conducted in September 2018 in the city of Khabarovsk in order to identify the attitude of the population to their health also showed the importance to continue research in this sphere. The survey involved randomly selected 100 respondents, 91% of whom showed interest in their health protection (Gutik, 2018).

Therefore, in 2019, the authors conducted a sociological study. The aim of it was to research the population behavior in the sphere of health protection and promotion and to determine factors, which determine factors influencing the formation of behavior strategies.

METHODOLOGY

To research the population behavior strategies in the sphere of health, the study uses the methodology of the socio-demographic approach, which is based on the principles of social psychology and the theoretical works of sociology and demography. This approach helped to identify the dependence of self-preservation actions on socio-demographic indicators. During the study of medical awareness, legal medical literacy and attitude of the population towards health-saving behavior, the competency-based approach was used to study the formation of knowledge and skills in the sphere of health conservation.

The empirical research was carried out in the city of Khabarovsk in the form of a questionnaire-based survey (25 questions, 118 investigated characteristics). The survey involved 600 city residents. It was a simple random sample.

We used Microsoft Excel (2010) and SPSS STATISTICS for the processing of empirical data. Mean values and standard deviations were calculated. Contingency tables and correlation analysis were applied.

38% of the respondents were male, 62% were female. The age composition of respondents was represented by the following groups: from 18 to 25 years old - 27%, from 26 to 33 years old - 17%, from 34 to 41 years old - 27%, from 42 to 49 years old - 15%, and 7% of respondents were from 50 to 57 and 7 % were 58 years old and older. According to their social status, the respondents were divided into the following groups: 18% of the respondents were students, 30% were employees, 27% were workers, 7% were civil servants (officials) and entrepreneurs, 2% were military personnel, 4% were pensioners, 3% were housewives and the rest 9 % of the respondents were temporarily out of work.

RESULTS

For the formation of responsible behavior of the population in the sphere of health, it is necessary to pay special attention to the literacy of the population in health issues. Literacy (awareness, competence) in health issues and its protection reflects cognitive and social skills that determine the motivation and ability of a person to access information, understand and use it in a way that helps to improve and protect health. Awareness of health issues and its protection involves the achievement of a certain level of knowledge, personal skills, and confidence in the ability to take any action to improve personal health by changing lifestyle and living conditions. To increase literacy and public awareness of health issues, it is necessary to organize various events and use different sources of information. They can take many different forms, each of which has certain advantages and disadvantages ([Amlaev et al., 2012](#)).

During the research we revealed that 50% of respondents know little about their rights in the sphere of health protection, 22% noted that they were completely unfamiliar with the legislation of the Russian Federation on the protection of public health, 16% found it difficult to answer this question, and only 12% of respondents were well informed about these issues.

Table 1 shows the distribution of sources of information about the rules of a healthy lifestyle among respondents. When identifying the main sources of information about health protection, respondents were allowed to choose more than one option from the suggested ones.

Table 1: Distribution of information sources on health protection

Source of information	Number of people	Share, %
Mass media	217	36
Internet	408	68
Doctors, medical workers	182	30
Specialized medical publications, brochures	50	8
Relatives, friends, acquaintances	219	37

Source: Developed by authors

In determining behavior strategies for health protection, the key element is to understand health risks. There is a great number of different definitions of the term “health risk”. The World Health Organization interprets this concept as “a factor that increases the likelihood of adverse health effects”. There is an infinite number of such factors, and it is the assessment of these factors that helps to focus on existing threats ([Global health risks, 2009](#)).

The results of the assessment of health threats by respondents are presented in Table 2. When assessing these factors, respondents were also allowed to choose more than one of the suggested options.

Table 2: Respondents` health threats assessment

Risk factors	Number of people	Share, %
My lifestyle	112	19
Quality of food	204	34
Presence of bad habits	149	25
Ecological situation in the area of living	180	30

Limited availability and poor quality of medical help	183	31
Lack of preventive measures in the healthcare system	80	13
The inaction of authorities in the sphere of health preservation and promotion	83	14
Difficult to answer	70	12

Source: Developed by authors

When identifying population behavior strategies concerning health, the authors evaluated the distribution of self-preservation actions among respondents. The distribution of the results for this indicator is shown in Table 3.

Table 3: Distribution of self-preservation actions among respondents

Self-preservation actions	Number of people	Share, %
I have a healthy lifestyle	209	35
I regularly do morning exercises, jog	94	16
I go to the gym regularly	104	17
I take vitamins, dietary supplements	182	30
I regularly have preventive therapy without contacting medical institutions	51	9
I regularly go to healthcare centers for medical examinations	131	22
I don't do anything	124	21

Source: Developed by authors

Tables 4, 5, 6 and Figure 1 show the results of the dependence of these indicators on the socio-demographic characteristics of the respondents.

Table 4: Distribution of respondents by gender (%)

Self-preservation actions	Male	Female
I have a healthy lifestyle	30	38
I regularly do morning exercises, jog	18	14
I go to the gym regularly	17	17
I take vitamins, dietary supplements	19	37
I regularly have preventive therapy without contacting medical institutions	9	8
I regularly go to healthcare centers for medical examinations	15	26
I don't do anything	28	16

Source: Developed by authors

Table 5: Distribution of respondents by age (%)

Self-preservation actions	18-25 years old	26-33 years old	34-41 years old	42-49 years old	50-57 years old	58 years old and older
I have a healthy lifestyle	34	42	33	23	32	57
I regularly do morning exercises, jog	18	16	17	14	7	14
I go to the gym regularly	18	20	21	18	2	7
I take vitamins, dietary supplements	35	36	32	22	16	24
I regularly have preventive therapy without contacting medical institutions	6	8	7	14	7	12
I regularly go to healthcare centers for medical examinations	17	19	23	21	34	33
I don't do anything	2	21	16	23	30	17

Source: Developed by authors

Table 6: Distribution of respondents by income level (%)

Self-preservation actions	Less than 15000 rubles	16000-30000 rubles	31000-45000 rubles	46000 rubles and more
I have a healthy lifestyle	41	41	30	34
I regularly do morning exercises, jog	17	12	16	19
I go to the gym regularly	17	10	14	25
I take vitamins, dietary supplements	31	25	37	30
I regularly have preventive therapy without contacting medical institutions	2	7	11	11
I regularly go to healthcare centers for medical examinations	24	15	23	25
I don't do anything	19	20	23	17

Source: Developed by authors

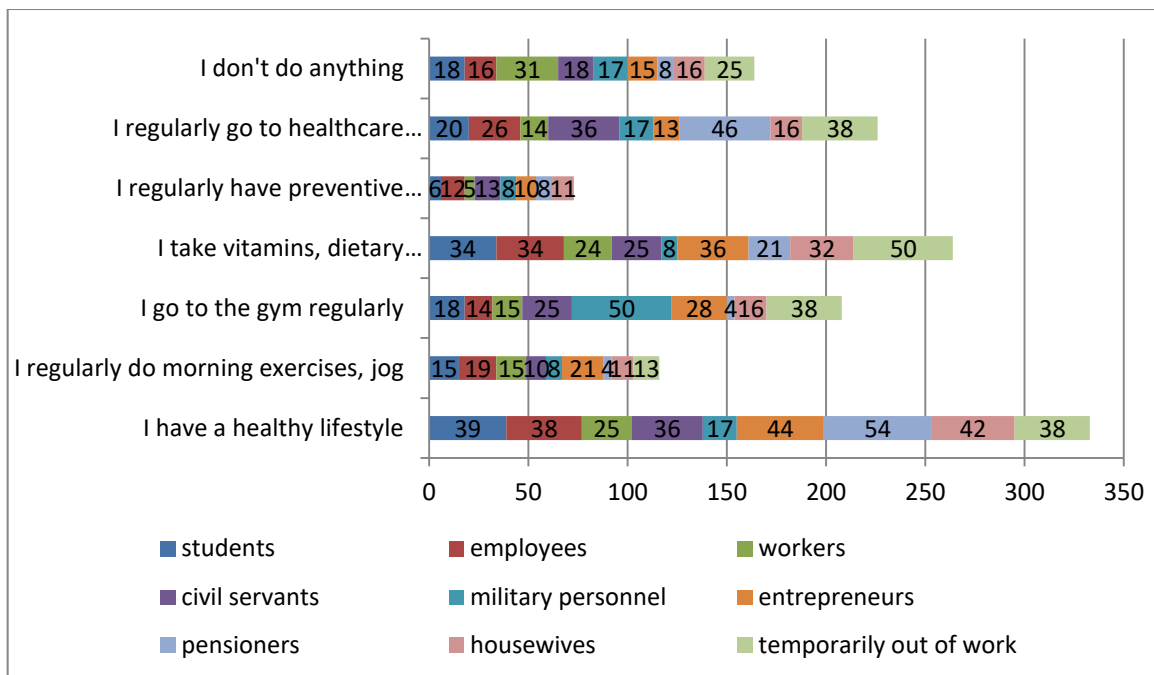


Figure 1: Distribution of respondents by social status (%)

Source: Developed by authors

The behavior of an individual in the case of a disease is a component that affects the formation of a behavior strategy in the sphere of health. The assessment of this indicator is presented in Table 7.

Table 7: Behavior of respondents in case of a disease

Behavior patterns	Number of people	Share, %
I always go for medical help	207	35
I go for medical help only in cases of serious diseases	263	44
I practically never go for medical help	69	12
I prefer self-treatment	77	13
I hope for fast recovery	51	9
I prefer to use natural home remedies	34	6

Source: Developed by authors

One of the alternative strategies for population behavior, when it is necessary to receive medical services, is treatment and screening abroad. Khabarovsk citizens are not the exception from the list of travelers who go around the world for treatment. Taking into account the geographic proximity and awareness of the population about the opportunities, the inhabitants of our city as exporters of medical services often prefer the People's Republic of China, the Republic of Korea, Singapore, Japan (Gareeva, 2016). The survey results showed that only 14% of respondents rely on medical help provided in Russia, and do not consider the necessity of going to other countries as medical tourists. 33% of the respondents would use this service with pleasure, but they do not have money for it, 21% will receive medical care only

in foreign clinics if necessary, and the same amount of respondents noted that if it is impossible to get help in Russia, they will go abroad, 11% refused to answer.

DISCUSSION

The obtained results allow us to conclude about the low level of medical awareness and legal medical literacy among the population. The sources that the population uses to get information on health issues and its protection in most cases are designed for the general population and exclude an individual approach to the formation of health-saving skills, oriented on certain periods of people's life. This is one of the factors leading to the low activity of the population and contributing to the formation of negative behavior strategies in the sphere of health protection. Studies conducted by Zelionko A.V., Luchkevich V.S., Filatov V.N., Mishkich I.A. in 2017, also identified "significant indicators of health-saving behavior which influence the indicators of live quality: knowledge, motivation, and implementation of the principles of health-saving behavior, as well as the availability of first aid skills and timely acquisition of skills in the sphere of health saving (Zelionko et.al., 2017).

When assessing risk factors, the presence of bad habits as a threat was noted by 25% of respondents, and almost half (46%) indicated that there are bad habits in their lifestyle. It proves that more than half of the respondents do not consider the existence of bad habits in their lifestyle as a threat to health. Only 19% of respondents consider their lifestyle to be risky. At the same time, low activity in the application of self-preservation actions is noted. 21% of the Khabarovsk respondents do nothing to protect their health. Misunderstanding of health risks reduces the activity of health-saving actions, which leads to loss of health by an individual and affects the quality of life. Thus, the risk for health is another factor affecting the choice of behavior strategies concerning health among the population.

Medical tourism is a kind of tourism, the purpose of which is the organization of treatment and preventive examinations of citizens abroad. In modern conditions, medical tourism can be considered as a social practice, which has recently become widespread (Lyadova, 2017). Annually 11 million people are treated abroad. According to experts, in the next 10 years, annual growth of this kind of treatment will amount to 25% and 3-4% of the world's population will go abroad for treatment and rehabilitation (Medical Tourism Index, 2016).

The possibility to receive medical help abroad was highly appreciated by respondents. It points to another factor forming this strategy of behavior. It is a lack of trust in the medical care provided in Russia. Our data confirm the results of the joint study "Quality of medical services: a request for tight control" conducted by the Russian Public Opinion Research Center (VCIOM) and the Center for Social Design "Platform". Specialists note that "41% of Russians do not trust their diagnosis or double-check the doctor's prescription" (Quality of medical services: a request for tight control, 2019).

Seeking medical help only in case of a serious disease is an indicator of risky health behavior, which was demonstrated by almost half of the respondents (44%). This fact so confirms the mentioned above data.

When analyzing self-preservation actions that are common among the population, we also noted a low activity of people in the formation of preventive behavior, which correlates with indicators such as gender, age, social status, and income level. Women are a little more interested in it. More responsible behavior and interest in the sphere of health protection are observed among the older generation and less socially engaged groups (entrepreneurs, pensioners, housewives, temporally unemployed). The level of income affects the choice of specific self-preservation actions. The data obtained during a study conducted at the Moscow State University named after M.V. Lomonosov also confirm this fact. "People with higher income take care of their health more regularly (only 28.9% of respondents with an income of fewer than 20 thousand rubles take care of their health regularly, and among people with an income of more than 50 thousand rubles they are already 50%)" (The family-child lifestyle values (SeDOJ-2019), 2020).

CONCLUSION

To achieve positive results in the sphere of public health is possible only in case of the mass involvement of citizens in the practice of responsible attitude to their health, the formation of positive strategies in the sphere of health protection and if they refuse from negative ones. At various stages of an individual's life, specially oriented knowledge and skills are required to minimize and prevent the possible impact of risk factors for a certain pathology in the sphere of health (Rudd, 2015). Therefore, to improve the quality of life of the population and increase its life expectancy, it is necessary to develop and implement events that increase awareness and literacy in the sphere of prevention and health-saving activities, focused on various social groups of the population. It is necessary to pay special attention to young people (schoolchildren, students, and working people) because it is typical for them to shift to alternative negative behavior strategies for health protection and promotion. Only a joint effort of the state and citizens themselves can solve this problem.

LIMITATION AND STUDY FORWARD

The conducted study identified the most common factors that must be considered when organizing health-saving activities. However, this issue requires a deeper analysis. It is necessary to determine the elements in the system of the formation of new attitudes in the sphere of health protection and promotion. Therefore, the next step in our study will be the identification of motives for self-preservation actions by the population.

ACKNOWLEDGMENT

The reported study was funded by RFBR, project number 19-313-90035.

AUTHORS CONTRIBUTION

Gareeva I.A. contributed to the research planning and manuscript writing. Gutik T.V. interpreted the results and wrote the manuscript of the article.

REFERENCES

1. Amlaev, K.R., Koichueva, S.M., Makhov, Z.D., Koichuev, A.A. (2012). Formation of literacy in health issues. Evidence-based guidelines (a review). *Profilakticheskayameditsina*, 6, 26-28.
2. Antonov, A.I. (1998). *Microsociology of the family (methodology for the study of structures and processes)*. M.: Nota Bene.
3. Barreto S.M., Giatti L., Hernaez A.M. (2011). Contextual and family factors associated with negative assessment of children's health. *European Journal of Public Health*, 21 (5), 649-655. <https://doi.org/10.1093/eurpub/ckq071>
4. Bourdieu, P. (1989). *Distinction: A social critique of the judgment of taste*. N.Y.: Routledge.
5. Cockerham, W., Rutten, A., Abel, T. (1997). Conceptualizing contemporary health lifestyles: moving beyond Weber. *The Sociological Quarterly*, 38. <https://doi.org/10.1111/j.1533-8525.1997.tb00480.x>
6. Executive Order of the President of the Russian Federation No 204 of May 7, 2018 "On National Goals and Strategic Objectives of the Russian Federation through to 2024".
7. Gareeva, I.A. (2016). Medical tourism: an alternative or threat to Russian health care system. *Bulletin of the Pacific National University*, 1 (40).
8. *Global health risks: mortality and burden of disease attributable to selected major risks*. (2009).
9. Gutik, T.V. (2018). The attitude of population to health (a case of Khabarovsk). *Society: sociology, psychology, pedagogy*, 11, 28-30.
10. Haun, J.N., Valerio, M.A., McCormack, L.A., Sorensen, K., Paasche-Orlow, M.K. (2014). Health literacy measurement: An inventory and descriptive summary of 51 instruments. *Journal of Health Communication*, 19 (Suppl. 2), 302-333. <https://doi.org/10.1080/10810730.2014.936571>
11. Ivakhnenko, G.I. (2006). The health of Moscow students: an analysis of self-preserving behaviour. *Sociological Studies*, 7, 78-81.
12. Korolenko, A.V. (2018). Patterns of population's self-preservation behavior: research approaches and building experience. *Economic and social changes: facts, trends, forecast*, Vol. 11, 3, 248-263. <https://doi.org/10.15838/esc.2018.3.57.16>
13. Lyadova, A.V. (2017). The medical tourism as a social practice: reality and perspectives. *Humanities, social-economic and social sciences*, 3, 79-82.
14. *Medical Tourism Index (MTI) 2016*. (2016). 15. *National monitoring of the health of Russians* (2017).
15. Novoselova, E.N. (2017). Role of sociology in the study and maintenance of health among Russian population. *Moscow State University Bulletin. Series 18. Sociology and political science*, 3, 30-55. <https://doi.org/10.24290/1029-3736-2017-23-3-30-57>
16. Passport of the Priority Project "Formation of a healthy lifestyle" (approved by the Presidium of the Presidential Council for Strategic Development and Priority Projects (Minutes No. 8 of July 26, 2017). (2017).
17. *Presidential Address to the Federal Assembly of the Russian Federation on March 1, 2018*. (2018).
18. Rasskazova, E. I., Ivanova, T. Yu. (2015). Motivational models of health behavior: the problem of the "gap" between intention and action. *Psychology. Journal of the Higher School of Economics*, 12, 1, 105-130.
19. Rudd R.E. (2015). The evolving concept of health literacy: New directions for health literacy studies. *Journal of Communication in Healthcare*, 8, 1, 7-9. <https://doi.org/10.1179/1753806815Z.000000000105>
20. Shilova, L. S. (2012) *Russian patients in the context of healthcare modernization. Behavior strategies*. Saarbruken, LAMBERT Academic Publishing.
21. Shilova, L.S. (1987). Study of the behavioral aspects of public health. *Problems of social demography*.
22. Shilova, L. S. (2012). *Self-preserving behavior of patients in the context of modernization of Russian primary medical care: abstract of the dissertation of the candidate of sociological sciences*. Moscow, 134-140.
23. Shklyaruk, V.Ya. (2011). Self-preserving behavior as a type of demographic behaviour. *Vestnik Saratov State Technical University*, 1, 1, 316.
24. Shushunova, T.N. (2010). *Self-preservation as a behavior of college youth: the sociological analysis (an observation of Minsk college students)*. Minsk: Law and Economics.
25. *The family-child lifestyle values (SeDOJ-2019): an analytical report on the results of an interregional sociological and demographic study* (2020). Moscow: MAKSS Press.
26. *The results of the joint study "Quality of medical services: a request for tight control" of the Russian Public Opinion Research Center (VCIOM) and the Center for Social Design "Platform"* (2019).
27. Ulumbekova, G. E. (2018). Healthcare of Russia: 2018-2024. What to do? *Healthcare management: news, views, education. Bulletin of VSHOUZ*, 1, 9-16.



28. Vyalov, I.S. (2011). *Features of the formation and management of students` self-preserving behavior (on the example of students of the Peoples' Friendship University of Russia)*: abstract of the dissertation of the candidate of sociological sciences. Moscow.
29. Zelionko, A.V., Luchkevich, V.S., Filatov, V.N., Mishkich, I.A. (2017). Formation of risk groups on the level of hygiene awareness and motivation to health-saving behavior among urban and rural residents. *Hygiene and sanitation*, 96 (4), 313-319. <https://doi.org/10.18821/0016-9900-2017-96-4-313-319>
30. Zhuravleva, I.V. (2005). *Attitude to health as a sociocultural phenomenon*: abstract of the dissertation of the doctor of Sociology. Moscow.