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The attitudes of today's youth to the problem of longevity: the results of a sociological survey

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Abstract

In this paper topical issues in the field of sociological research, namely, the issue of longevity and eternal life, which is always excited the person are considered. Information on various studies related to the scientific developments of scientists on this issue in various fields of science, as well as the state of some studies of modern scientists is provided. Having studied new different materials, the questionnaire for survey was made. The results of a sociological survey of students from different educational institutions (college and universities) of the city Tomsk are given, and the results of this sociological survey have been analyzed.

Keywords: Sociological survey, longevity, eternal life, survey, sociological research;

1. Introduction

The question of longevity and immortality has always excited a person. Philosophers, artists and cultural figures, doctors and many other scientists from various fields of science were interested in this question. In addition, there are also practical branches of science aimed at studying and developing various technologies that improve human life. Medicine is a more familiar and ordinary one. The main goal of medicine is the preservation and maintenance of human life.

This issue remains relevant for science and for man. The relevance of our research within the framework of the paper is the actualization of knowledge on this issue and the problem of longevity in the academic community, future medical workers, as well as an acquaintance with new information.

The purpose of this paper is to analyze a sociological survey conducted among students of Tomsk Basic Medical College and among students of the Siberian State Medical University, as well as among students of other universities. The main tasks are: searching for literature on a given topic, acquaintance and analysis of literature on the topic, compiling a questionnaire and conducting a survey among students, analyzing the results of the survey.

American scientists, in particular, the gerontologist (gerontology - the science of the laws of the aging process) P. Forsythe, who observed the elderly people for fifteen years, in the beginning of the 20th century, concluded that the main causes of death of the elderly are diseases (about 98%) and natural old age (only 2%). Modern studies also confirm these data - very few people die from natural, physiological old age and various external factors influence on this. These factors are:

- malnutrition (chronic fasting or overeating);
- heavy physical labor
- high mental and nervous loads, stress;
- diseases and injuries;
- low physical activity;
- use of alcohol (alcoholism), smoking, etc.

2. Theoretical basis

Of course, as opposed to unfavorable factors, there are favorable ones, which are antipodes, the factors we have listed above can be added by a sufficient number of sleep hours.

German biologist August Weismann argued that death is not a general law of nature, since it is absent in protozoa. The individual life of the simplest (for example, ciliates) ends not in death, but in dividing the female parent into proter ones. The latter grows, and then, in turn, is reproduced mitotic division, etc. According to Weisman, the archaeala are potentially immortal. After this statement, people's faith in the reality of achieving the physical immortality of man returned to people. It is especially intensified at the beginning of the 20th century, after L. Woodref observed one cell that divided almost every hour and could not die for 26 years after. The same experiments with cells of the human body were carried out by Alexis Carrel and this experiment also confirmed that the cells were constantly dividing and after many years did not show signs of degeneration, which finally convinced people of the possibility of human immortality. In the 1970s Leonard Hayflick propagated human tissue cells in the cellular juice of these tissues, but he received this juice with the help of a centrifuge at a speed of 70,000 rpm. L. Hayflick proved that the cells of the human body divide not more than 50 times, followed by irreversible degeneration and cell death.

Based on the theory of the French biologist and naturalist G. Buffon, all mammals (as well as humans) live as long as the period of their growth (it is believed that the period of growth lasts until 25 years) multiplied by seven. Therefore, the average life expectancy of a person should be 140 years. Soviet academicians I. Mechnikov and A. Bogomolets said that death, which occurred earlier than 150-160 years, is unnatural [4]. The American endocrinologist D. Denkel speaks of the state of immunity as one of the most important factors affecting life expectancy. Based on his theory, if it is possible to maintain in a person the immunity of a 10-year-old child, the life expectancy would reach from 100 to 300 years. According to the scientists of the 18th century, physiologist A. von Haller and the gerontologist W. Hufeland, who in 1797 published the book «The art of prolonging human life» [2] the life expectancy on the Earth should not be less than 200 years. The famous German physician, naturalist and philosopher F. Paracelsus, who lived in the 16th century, told that the duration of the longevity was six hundred years, and the English philosopher and F. Bacon told about a thousand years. Here one can naturally recall the Methuselah, mentioned in the Bible, who lived 969 years, and indeed it can be attainable.

At the moment, medicine, according to Dr. D. Chebotarev, found a solution to one of the main tasks – to give a person the opportunity to live to his natural old age. The subsequent increase in

life expectancy is already the task of biology. Another scientist, L. Komarov, believes that it is practicable for a man to have a normal life of two hundred or three hundred years. If the necessary research is conducted purposefully and comprehensively, it will be possible to create drugs that will prolong life for 40 to 60 years, which means that the average duration of human life will be 100-120 years. Further scientific research will push this border to 150 - 200 years. From the theoretical point of view, according to L. Komarov, there is no limit here.

Despite all these fantastic figures, one can confidently say that a person lives less than half the time allowed to him by nature. Scientific research in recent years, observations of the aging process open up encouraging prospects: it is possible not only to make an active, able-bodied man's age longer, but in general to postpone the onset of old age. For example, in 2009 in Stockholm, the Nobel Prize in Physiology and Medicine was awarded to American scientist Elizabeth H. Blackburn, Carol W. Greider and Jack W. Szostak «for the discovery of how telomeres and telomerase enzyme protect chromosomes»[5]. The composition of telomerase includes a protein molecule, which, in fact, carries out the synthesis of telomeres, and an RNA molecule serves as a matrix for their synthesis.

3. Experiment results

Based on the theoretical material on the given topic, we compiled a questionnaire consisting of 14 questions, 13 questions are of a closed type, 1 question with the possibility of a multivariate response. The survey was conducted in an electronic form from 02.20. 2018 to 03.01. 2018, on the basis of the Internet resource Google Forms. The survey was conducted among students of Tomsk Basic Medical College and students of various universities in Tomsk; 100 people took part in it. They were asked to answer the following questions: your gender (73.7% -women, 26.3% - men), age (94.7% from 18 to 30; 5.3% older than 30), education (63.2% the secondary education, the professional education - 31.6%). Then followed the questions aimed at the topic of our study:

- Do you think that longevity is good? (yes - 63.2%, no - 36.8%);
- What age would you consider a longevity? (70-80 - 5,3%; 80-90 - 21,1%; 90-100 - 31,6%; from 100 and older - 42,1%);
- Are / were long-livers in your family? (yes - 57.9%; no - 42.1%);
- Do you think it is possible to achieve longevity by: proper nutrition - 89.5%; sports - 68.4%; quitting smoking - 78.9%; refusal of alcohol - 68.4%; compliance with the regime of day and night - 57.9%; prevention of diseases - 68.4%)?
- Do you think that there are more long-livers now than before? (yes - 21.1%; no - 78.9%);
- Do you know that science has proved that a normal human body can function normally for about 130-150 years? (yes - 42.1%; no - 57.9%);
- Would you like to be a long-liver? (yes - 42.1%; no - 57.9%);
- Do you know that according to the Bible Methuselah lived 969 years, and Noah - 950? (no - 68.4%; yes - 31.6%);
- Do you think that a person can live so much? (no - 73.7%; yes - 26.3%);
- Do you know about the term Immortology (the science of immortality)? (yes - 36.8%; no - 63.2%);
- How do you think it will be possible in the future to achieve a person of immortality? (yes - 57.9%; no - 42.1%).

After the survey, we made the following conclusions. The relevance of our research is confirmed with the purpose of self-acquaintance with various materials on the problem of longevity and eternal life and submit these data in the paper. The theme of longevity is relevant

for young people, since 57.9% of respondents see the possibility of achieving longevity and immortality in the future, but when answering the question if they want to be a long-liver, we meet with the answer that 57.9% of respondents do not want to be long-livers. Why? Perhaps this is due to poor knowledge of current scientific trends, developments in various fields of science. Perhaps with the reluctance to change the habitual way of life to a more «correct» one. However, the bulk of the survey participants associate the possibility of longevity with proper nutrition.

When answering questions related to a variety of general (cultural-historical) information, such questions as "Do you know what immortology is?" or "Do you know that Methuselah and Noah lived for almost a thousand years?", the majority of respondents answered negatively (more than 60%). This can be explained by disinterest in these questions. Moreover, because of the lack of evidence and non-scientificness of these facts, they are perceived negatively.

Answering the question about long-livers in their family, the majority of the respondents answered positively (57.9%), although they believe that the long-livers are now less than before (78.9%).

4. Conclusion

In conclusion, I would like to say that the results of the survey were quite interesting and varied. This topic is relevant for modern youth, and in general understanding what steps can be taken to achieve longevity have been identified. We cannot deny the importance of external influences on human life. And when answering the question: "Is it possible to achieve longevity by: proper nutrition?" the majority (89.5%) chose the item on nutrition, this is exactly what we can independently and easily influence on. This is also reflected in the life of society. The movement for proper nutrition began to develop in the 20s of the 20 century, and it was headed by such people as: Dr. Paul Bragg; an inventor of fitness, Jack Lalann; one of the founders of the diet, Max Gerson; a biochemist, Artturi Virtanen; an immunologist, Ann Wigmore. Many people think about what and when they eat, building their own food system, which gives positive results.

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