

The attitude of the population of the Republic of Sakha (Yakutia) to the folk (traditional) medicine

and the experience of its application: medico-sociological research

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Population attitudes to traditional (folk) medicine and the experience of its application

in the Sakha republic (Yakutia): medical and sociological research

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#### SUMMARY

V publications results are presented medico-sociological research of residents of the Republic of Sakha (Yakutia) using the original online questionnaire "Medicines in our life." As a result of the study, it was confirmed that the respondents had a satisfactory awareness of medicines and traditional medicine for health improvement, treatment and prevention of diseases.

The characteristics of the socio-demographic, medical and pharmaceutical portraits of the respondents, their attitude to health, the range of consumer values important for the use of medicines were obtained. The facts of a positive attitude of the population to folk (traditional) medicine, the popularity of a combination of methods and means of official and traditional medicine have been established. Revealed the relevance of expanding the range of pharmaceutical phytoproducts at the expense of folk herbal medicine.

Keywords: medicosociological research, population survey, pilot research, traditional medicine, informal medicine, traditional medicine, medicines, medicinal plants, respondent's portrait, consumer values, Republic of Sakha (Yakutia).

#### RESUME

The publication presents the results of a medical and sociological research of residents of the Sakha Republic (Yakutia) using the original online questionnaire "Medicines in our life". As a result of the study, it was confirmed that the respondents have a satisfactory awareness about medicines and means of traditional medicine for health

improvement, treatment and prevention of diseases.

The characteristics of the sociodemographic, medical and pharmaceutical portraits of the respondents, their attitude to health, and the range of important consumer values for the use of medicines are obtained. The facts of a positive attitude of the population to traditional (folk) medicine, the popularity of combination of methods and means of official and traditional medicine have been established. The urgency of expanding the range of pharmacy herbal products by folk herbal medicine is revealed.

Keywords: medical and sociological research, population survey, pilot study, traditional medicine, folk medicine, medicines, drugs, medicinal plants, respondent's portrait, consumer values, Republic of Sakha (Yakutia).

Traditional medicine (healing, healing) is a set of empirical knowledge and practical techniques accumulated by the people throughout its historical development, passed down from generation to generation and used by them for the purpose of recognizing, healing and preventing diseases [1]. Traditional medicine includes methods of health improvement, established in folk experience, based on the use of knowledge, skills and practical skills to assess and restore health [2]. In this study, the semantic equivalence (synonymy) was assumed mainly for the terms for the concept of traditional medicine: folk, traditional, unofficial, alternative; as well as terms for the concept of official medicine: official, scientific, evidence-based.

The peculiarities of the climatic and geographical conditions of the Far North and the Arctic suggest the advisability of expanding the range of official remedies and the range of treatment methods through the use of the experience of traditional medicine in cases where medical assistance (by means of official medicine) becomes difficult to access for some reason.

In this regard, we formulated the purpose of the study: to study the opinion of the population of the Republic of Sakha (Yakutia) about folk (traditional, unofficial) medicine and about the experience of its use by the respondents in this region.

#### MATERIALS AND RESEARCH METHODS

The objects of the research were normative documents recommended for use in the prescribed manner, and bibliographic sources of a high degree of reliability, including monographs, scientific periodicals, reference books, dissertations, dissertation abstracts, as well as electronic scientific and official databases. We also took into account Internet resources with links to bibliographic sources of a high degree of reliability.

When performing the work, the following research methods were used: information-analytical, historical, content analysis, systematization, logical analysis; sociological (survey, questionnaire survey); economic and mathematical for statistical processing (average values,

structural analysis, comparative analysis, grouping, ranking, graphical) [3].

Characteristic research: medico-sociological, selective, descriptive, epidemiological, analytical), observational (observational, pilot.

The study was carried out within the framework of the program of the scientific school of prof. Dremova N.B. (KSMU, "Theory and practice of marketing research in pharmacy") [4].

#### 1. Information and analytical study of the peculiarities of the natural and climatic conditions of the Republic of Sakha (Yakutia)

At the initial stage of the study, we analyzed and generalized data on the peculiarities of the natural and climatic conditions of the Republic of Sakha (Yakutia) (RS (Y)).

RS (Y) is located in the northeastern part of Eurasia, it is the largest region of the Russian Federation, 40% of its territory is located beyond the Arctic Circle. This is the coldest inhabited area of the planet, the climate is sharply continental, the negative temperature lasts up to 5 months a year [5].

In the Arctic, residents have to adapt to frequent geomagnetic disturbances, "ultraviolet starvation", sharp fluctuations in atmospheric pressure, low humidity and air temperature. In fact, the human body in the Far North is in a stressful situation throughout the year. The functioning of all its organs and systems is supported by adaptive or adaptive reactions. This fact determines the differences in the indicators of the human body from those in the middle lane. As a result of long-term adaptation to northern extreme conditions, local normative indicators of the work of organs and systems of the body are formed in indigenous and newcomers.

The influence of natural factors in the Far North leads to the rapid progression of chronic non-infectious diseases already at a young age, acceleration of aging processes and a significant reduction in life expectancy. The population of Yakutia begins to suffer from coronary heart disease, arterial hypertension, myocardial infarction, angina pectoris about 10 years earlier than in middle latitudes [6].

According to statistics in the Republic of Sakha (Yakutia), diseases of the circulatory system (45.4%) and neoplasms (18.0%) occupy the first place in the structure of mortality in 2019 [7].

The climatogeographic conditions of Siberia and the Far North affect the course of chronic respiratory diseases, forming a high frequency of cold airway hyperactivity and rapidly progressing mucociliary insufficiency, which leads to impaired respiratory function and the development of pulmonary hypertension. There is also a typical seasonal character of exacerbations caused by the action of low ambient temperatures [8].

Taking into account the listed features, the "polar tension syndrome" is formed in the indigenous people, which is characterized by a persistent increase in the level of stress hormones in the blood and the switch of energy metabolism from carbohydrate to

fatty. The activation of lipid peroxidation reactions and changes in the physicochemical properties of biological membranes are also recorded [9].

To date, the influence of adaptation factors on the structure of an individual's morbidity is considered proven, depending on the duration of his residence in the North. In particular, with constant living in the North and the systematic release of the stress hormone cortisol into the blood, the adaptive resistance of the organism significantly decreases, the level of psychoemotional stress increases, the functioning of the immune system deteriorates, and the likelihood of an infectious pathology increases [6].

Constant work of the body in overload mode leads to the development of chronic diseases as a natural result of maladjustment. Also, there is a decrease in mental and physical performance, a significant increase in the timing of wound healing and consolidation of bone fragments is recorded.

Since the Earth's magnetic field at the latitudes of the Far North protects these parts of the planet much worse, the invasion of charged particles into the atmosphere increases and in the process of magnetic storms, the protein growth of the bone marrow changes and immunological reactivity (meteoathic reactions) is weakened.

As in any society, the peoples of the Far North and the Arctic have already formed their own established way of life, which depends on behavioral and personal factors. First of all, this is an unbalanced diet with a deficiency of vegetables and fruits. Another group of factors includes smoking, alcoholism, and low physical activity [10].

According to the Ministry of Health of the Republic of Sakha (Yakutia), the leading positions in the structure of morbidity in the republic's population in 2019 (patients with a diagnosis established for the first time in their lives) are occupied by: diseases of the respiratory system (56.1%), of the digestive system (5.0%) , skin and subcutaneous tissue (4.2%), genitourinary system (3.5%), circulatory system (3.2%), musculoskeletal system (2.5%), which in total amounts to 75% of the total morbidity [eleven].

Taking into account a brief description of the natural and climatic conditions and their impact on the health of the indigenous population of the Republic of Sakha (Yakutia), we put forward an assumption about the advisability of using the experience and means of traditional medicine by the inhabitants of the Far North and the Arctic:

- for preventive purposes;
- at the initial stage of development of diseases (including in conditions of temporary unavailability of medical care);
- as an accompanying therapy in the provision of planned medical care;
  
- at the stage of rehabilitation - in order to minimize the negative consequences of the transferred diseases.

2. Medico-sociological study of the attitude of the population of the Republic of Sakha (Yakutia) to medicines and traditional medicine

Since the end of the 20th century, medical

sociological work based on attracting various segments of consumers to participate in them, in particular the population as a whole, its individual groups, experts and other target audiences - depending on the group of goods or services [12, 13, 14, 15].

The present study involved consumers of medicines (MPs) - residents of the Republic of Sakha (Yakutia). The sociological survey was carried out by filling out a special original online questionnaire "Medicines in Our Life" based on Google Forms technology. The design of the questionnaire was developed at the scientific school of Professor N.B.Dremova. (KSMU, Dremova N.B., Solomka S.V. [4]). Taking into account the study region of the Republic of Sakha (Yakutia), Associate Professor S.M. Tarabukina the questionnaire was supplemented with two blocks of questions, including one for studying the attitude of the participants to traditional medicine. The online survey was conducted in January-May 2020. 100 people took part in it (pilot study), but 85 of the most complete (informative) completed questionnaires were selected for statistical processing.

### 2.1. Research hypothesis

As a hypothesis of the study, it was suggested that modern drug users - residents of the Republic of Sakha (Yakutia) - have a satisfactory awareness of drugs and traditional medicine for health improvement, treatment and prevention of diseases.

### 2.2. Socio-demographic portrait of the survey participant:

- women - 84.7%;
- age from 21 to 60 years - 78.8%;
- social status - 78.9% - employees;
- education - 83.5% - higher;
- marital status - 60% - married;
- the presence of children - 62.4% - from 1 to 3;
- income per family member - 61.2% - from 1 to 3 living wages;
- place of residence - 76.5% - city;
- specialty - 22.4% humanitarian, 18.8% economic, 16.5% pharmaceutical, 11.8% technical, 9.4% medical sciences.

### 2.3. Medical profile of survey participants (self-assessment)

As a result of statistical processing, the average self-assessments (on a 5-point scale) of the following types of health were established:

- physical: 4 - 34.1%, 3 - 56.5%;
- mental: 4 - 47.1%, 3 - 37.6%;
- social: 4 - 57.6%, 3 - 31.8%;
- overall health: 4 - 30.6%, 3 - 62.4%.

On average: 5 - 6.8%, 4 - 42.3%, 3 - 47.1%, 2 - 1.5%. The presence of self-assessments 4, 3, 2 indicates existing health problems in the dominant share of survey participants - 90.9%. Seasonal diseases were mentioned by 82.4% of the respondents.

## 2.4. Pharmaceutical portrait of respondents

Almost all respondents (97.6%) noted the main goal of taking drugs - treatment of diseases, 42.4% - prevention and 9.4% - rehabilitation (in the questionnaire it was possible to mark several goals). At the same time, 77.6% admit self-medication (self-help) in simple cases of ailments.

Assessment of the level of knowledge of the survey participants about drugs made it possible to establish that 24.7% know drugs that they take regularly; 56.5% know the drugs prescribed by their doctors. The level of their knowledge about drugs was rated at 5 points by 9.4%, at 4 - by 28.2%. Slightly more than half - 55.3% objectively assessed it as mediocre knowledge. The respondents know that drugs for their lifetime use in 22.4% of cases are a multicomponent product; synthetic or semi-synthetic production - 20%; from medicinal plant materials (MP) - 7.1%.

14.1% of respondents prefer drugs of domestic production, foreign - 30.6%, without preferences in manufacturers - 45.8%. Of the "home" means, 48.2% prefer those made from medicinal plant raw materials, and beekeeping products - 47.1%. 37.6% use the recommendations of health workers as sources of the formulation of "home" remedies, 37.6% independently study information sources, 4.7% use the experience of relatives, acquaintances and their own, the advice of pharmacists - 15.3%.

## 2.5. Attitude to health and its place

in the system of vital social values It is a scientific fact that 96.5% of respondents agree with the WHO definition: "health is a state of complete physical, mental and social well-being, and not just the absence of disease or malaise (physical defects)" [16].

An analysis of the answers about the personal characteristics of modern patients revealed 9 out of 11 who received positive ratings from over 20% of respondents. These included such as:

- 1) has wide access to medical and pharmaceutical information - 60%;
- 2) has expanded opportunities for self-medication - 43.5%;
- 3) increased medical and pharmaceutical literacy - 37.6%;
- 4) increased awareness of their diseases and their drug therapy - 35.3%;
- 5) there is a negative experience of going to a doctor - 24.7%;
- 6) has an increased level of education - 23.5%;
- 7) are interested in methods and theories of informal medicine - 22.4%;
- 8) has a high suggestibility - 21.2%;
- 9) critically evaluates the therapy prescribed by the doctor for his diseases - 20.0%.

The following 2 stats have not received more than 20%:

- 1) there are family traditions in the treatment and prevention of diseases - 16.5%;
- 2) prefers drugs containing active ingredients from medicinal plant raw materials - 15.3%.

The respondents expressed the following opinion about the assessment of their own illness or the illness of their loved ones: the illness is seen as an obstacle (51.8%) or an enemy threatening the integrity of the personality (40%), which must be dealt with, which requires a change in attitudes (9.4%) , as well as giving up bad habits and maintaining a healthy lifestyle (HLS).

## 2.6. Expanding the range of important consumer values for use LS

The survey participants expressed their views on the sphere of the so-called "medicalization" of life. In their opinion, in the near future, drugs and health products will be needed to meet such needs as: 1) provision of healthy lifestyles - 71.8%; 2) the cult of healthy eating - 58.8%; 3) the fight against excess weight - 56.5%; 4) playing sports - 50.6%; 5-6) quitting smoking, alcohol, drugs - 47.1% each; 7) fight against high cholesterol content - 34.1%; 8) self-help (self-medication) - 32.9%.

The respondents believe that in the future an increase in the assortment of drugs of various origins is expected - synthetic chemical, biotechnological, semi-synthetic, natural. This growth will be due to the need to satisfy a wide range of consumer needs (out of 15 proposed in the rating, we have selected 7 with indicators of 15-50%):

- an increase in active life expectancy - 42.4%;
- normalization of nutrition and problems of excess weight - 37.6%;
- solving difficult life situations - 34.1%;
- increasing the ability to work and solving new career problems - 23.5%;
- increase in physical abilities - 22.4%;
- solving problems of the appearance and mobility of the body - 20.0%;
- achieving good physical shape and increasing intellectual ability-tei - 18%.

## 2.7. Place and role of traditional medicine

As a result of a sociological survey, 65.9% of respondents found a positive attitude towards traditional medicine, 22.4% had a negative opinion, and 11.8% found it difficult to assess. About the opinions of friends and acquaintances of the study participants, a positive attitude was noted by 69.4% of respondents, negative - 10.6%.

There are many methods in the practice of folk (or traditional) medicine, but the most famous among the respondents are: herbal medicine (herbal medicine) - 74.1%; hirudotherapy (treatment with leeches) - 54.1%; acupuncture (acupuncture) - 54.1% and moxibustion (thermal effect on acupuncture points) - 14.1%; homeopathy - 51.8%; bloodletting - 47.1%; use of minerals and water sources - 44.7%; use of animal products - 31.8%.

In our opinion, respondents honestly expressed their opinions that they could not completely abandon official medicine in 81.2% of cases; could only 11.8% of survey participants.

At the same time, 49.4% of respondents believe that a combination of methods of official and alternative medicine is currently popular among residents of the northern and arctic territories.

More than half of the participants (57, 6%) know that when treated with traditional medicine, side effects for the body are possible; only 7.1% answered that there were no such cases, and 35.3% found it difficult to answer.

At the end of the survey, 52.9% of the respondents answered positively that they know about cases of assistance in healing themselves and their loved ones using traditional medicine methods.

Separately, the study asked about the need to expand the range of phytoproducts in pharmacies [17] at the expense of folk herbal remedies - 57.7% of survey participants spoke positively, the rest were at a loss - 25.9% or answered negatively - 16.4%.

### 3. Discussion of research results study

The carried out allowed install, what the socio-demographic portrait of the respondents - residents of the Republic of Sakha (Yakutia) - practically does not differ in most indicators from the results of similar studies in Central Russia [13]. Most of the health issues are dealt with by able-bodied women, employees, urban, middle-income, family, with children. All of them need drugs to maintain the health of their own and their loved ones, which motivates their interest and awareness of the means that can help them.

When compiling a medical portrait of the survey participants, the presence of health problems (physical, mental, social, the whole body in general) was revealed according to the average indicators of the studied contingent. Basically, respondents suffer from diseases of the gastrointestinal tract (30.6%), cardiovascular system (28.2%), musculoskeletal system (21.2%), ENT (18.8%) and respiratory system (17, 6%). The presence of acute and chronic diseases determines the expressed interest of the population in various means and methods of treatment, prevention and rehabilitation.

The pharmaceutical profile of the participants compiled by us made it possible to establish that the overwhelming share of respondents (95.3%) prefers ready-made drugs purchased in pharmacies. In about a fifth of the answers (17.6%), preference was given to phytopreparations from medicinal plant raw materials, both ready-made and "folk" made at home. 51.7% have a positive attitude to dietary supplements, but 12.9% take them constantly or 38.8% rarely.

The majority of respondents (92.9%) rated their knowledge about drugs at 3-5 points, and the self-assessment of knowledge about drugs for more than half of the survey participants is mediocre (3 points). Also, the majority expressed a desire to improve their knowledge in the field of drugs, which can be interpreted as a positive trend in patients' aspirations to have information available for their educational status about those drugs that allow them to cope with diseases. This scientific fact can be qualified as confirming the importance of drugs in human life.



Of the 8 vital values (work, education, family, stability, religion, health, money, friends) according to the direct ranking method (the most important value is assigned 1st place or 1 point, less important - 2nd place or 2 points, and etc.), the respondents identified the most significant: family (average score 2.81), health (3.11), work (3.88). That is, of the vital values, the inhabitants of the Republic of Sakha (Yakutia) give preference to health, family and work. It should be noted that the first two places in similar studies, as a rule, are given by our compatriots from other regions also to family and health.

When analyzing the features of the personal characteristics of a modern patient, the facts draw attention to themselves that a quarter of respondents (24.7%) have a negative experience of going to a doctor, almost a quarter (22.4%) are interested in methods and theories of unofficial medicine, and a fifth (20, 0%) critically assess the therapy prescribed by a doctor for their diseases, while 21.2% of respondents noted high suggestibility. In the opinion of the population, in the near future it is expected to expand the range of important consumer problems that can be solved with the use of drugs, which will contribute to the expansion of the range of new drugs on the pharmaceutical market.

It was revealed that about 2/3 of the population of the Republic of Sakha (Yakutia) have a positive attitude to informal medicine. At the same time, according to 64.7% of respondents, official medicine is more effective and safer than unofficial one. Only 8.2% of the respondents describe it as a more effective and safer traditional medicine; found it difficult to answer - 27.1%. At the same time, 52.9% of respondents trust the methods of informal medicine for their own treatment, and 32.9% do not trust them.

The motivation of the population to use the experience and means of traditional medicine is diverse. For the most part, the survey participants resort to traditional medicine when official medicine is powerless - 43.5%; as well as in cases of problems with drug supply in pharmacies - 12.9%; on the advice of relatives and friends - 11.8%; because of the belief in the high efficiency and safety of traditional medicine - 10.6%; if desired, use only natural remedies for treatment - 9.4%.

## CONCLUSION

In general, a modern patient with MS (Y) is characterized by respondents as having wide access to medical and pharmaceutical information, having increasing medical and pharmaceutical literacy and awareness of their diseases, interested in the methods and theories of traditional medicine.

Age, social status, education, family and its composition, income allow one to argue for the expressed interest in such specific products as drugs and in the means used in traditional medicine.

Our hypothesis that modern drug users - residents of the Republic of Sakha (Yakutia) - have a satisfactory awareness of drugs and folk remedies for health improvement, treatment and prevention of diseases can be considered confirmed.

We have obtained scientific facts of a positive attitude towards traditional medicine of the inhabitants of the Republic of Sakha (Yakutia) - about 2/3 of the population. At the same time, half of the respondents support the opinion that a combination of methods of official and traditional medicine is more popular among residents. They believe that it is possible to expand the range of drugs used in practice and the range of treatment methods through the use of the experience of traditional medicine, especially herbal treatment methods for prevention and rehabilitation, as well as in cases where medical care (by means of official medicine) becomes or difficult to access reasons.

In connection with the increased interest in the use of phytotherapy methods, we consider it expedient to conduct an additional sociological study to study the range of LRP in pharmacy organizations of the Republic of Sakha (Yakutia).

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