

Original article

Reprint

Opinion dynamics on prevention and treatment of sexually transmitted infections against the background of COVID-19 pandemic

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Abstract: Objective: analysis of opinion dynamics in young people on prevention and treatment of sexually transmitted infections (STIs) against the background of COVID-19 pandemic vs. the pre-pandemic period.

Materials and Methods. Our research was based on a comparison of data from a sociological survey of 400 respondents 16-21 years of age in 2021 and an analysis of 838 questionnaires from participants of the same age in a similar study in 2017. The research employed the methodology of sociological questionnaire. The original questionnaire was used, consisting of 46 questions, combined into five thematic blocks: assessment of the STI problem relevance, likelihood of infection risk, readiness to undergo preventive screening examinations, preferred directions for seeking medical help in the event of STI, and consent to examination and treatment in conjunction with a sexual partner. By gender, the distribution of study subjects was as follows: 51% of women (n=427) in 2017 vs. 52% (n=208) in 2021; 49% of men (n=411) in 2017 vs. 48% (n=192) in 2021. In processing and presenting the data, extensive indicators were used, compared with the assessment of the significance of differences sensu Student's t-test.

Results. In 2021, we observed an increase in the interest of young people in undergoing screening examinations (79.5% vs. 63% in 2017, p=0.006) and seeking medical help (93.5% vs. 89.5%, p=0.007); on the other hand, in 2021, young people were more likely to conceal their health status from a partner (32.2% vs. 8.3%, p=0.003).

Conclusion. The study revealed a change in the opinions of respondents regarding STIs during the pandemic, specifically, an increase in understanding the need for regular examinations and seeking medical help in the event of STI symptoms, but at the same time, there was a reduced responsibility for the sexual health of their partner.

Keywords: sexually transmitted infections, COVID-19 pandemic, young people.

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Introduction

Prevention of sexually transmitted infections (STIs) is built mainly as work with young people. This is due to the fact that individuals under the age of 35 years old dominate in the age structure of newly detected cases of this category of diseases, and most of the manageable risk factors for the spread of STIs are relevant for this age group [1-3]. Extensive examination of published data and expert evaluation of risk factors and their properties revealed that modifiable factors of public opinion and social wellbeing impose crucial impact on the sexual lifestyle, which determines the epidemiological processes of STIs [4-6].

Against the background of COVID-19 pandemic in 2020-2021, there have been significant changes in state policy, public life and social wellbeing of the population, which a number of authors have already described as unprecedented [7]. Restrictions imposed on mass events and the transfer of educational institutions to a remote mode of operation have significantly reduced the potential of traditional health education of young people in organized groups [8]. Against

the background of the inevitable focus on coronavirus topics in the work of the official media, the role of informal Internet community in shaping public opinion on general health issues has increased [9]. Meanwhile, different authors gave opposite conclusions about the changes that occurred in the attitude of the population to public health issues and prerequisites for their formation. Among positive changes, there was an increase in the perception of diseases as a public rather than a personal problem [10]; an increasing attention to personal health and its value [11]; an increase of interest in medical information, respect and trust in doctors [12]; rallying of a certain part of the population around government structures, and the intensification of volunteer activities in the field of health care [13, 14]. The development of such attitudes was always considered the goal of preventing all diseases.

At the same time, other studies focused on the development of reverse trends, designated as risk factors that reduced the effectiveness of preventive work. It was noted that people's attention to their health was manifested mainly

in relation to the symptoms of coronavirus [15]. Under the influence of large-scale restrictive measures and their consequences for the economy and social sphere, manifestations of dissatisfaction with official state institutions, including the healthcare system, are currently growing, and the variety of alternative information sources in social networks activates medical dissidence [9, 16, 17].

The coexistence of opposing changes in public opinion has been noted not only in Russia, but in other countries as well, including the results of studies of past smaller-scale epidemics and other social upheavals [16, 18, 19].

Literature data allow us concluding that there has been a significant transformation in the perception of medical and social problems in the public consciousness, which inevitably affected knowledge and attitudes towards STI prevention. In a previous study, we assessed STI prevention as activities aimed at forming an objective idea of the global risk of infection for all sexually active people, attitudes towards screening examinations, timely seeking medical help, and motivation for the diagnosis and treatment of a sexual partner [3, 6].

Objective –analysis of the opinion dynamics in young people on prevention and treatment of sexually transmitted infections (STIs) against the background of COVID-19 pandemic vs. the pre-pandemic period.

Materials and Methods

The research program was based on a comparison of data from a sociological survey of 400 respondents 16-21 of age in 2021 with a sample of 838 questionnaires of participants in a similar study in 2017. The studied sample in 2021 was formed by random sampling of 100 respondents from among high school students of the natural sciences profile; 100 high school students specializing in the humanities, physics and mathematics; 100 undergraduate students of medical and biological fields of study at universities; and 100 university students of other fields of study. The data for 2017 were obtained via selecting 838 questionnaires of respondents 16-21 years old from the database of a similar study that we conducted in 2017. That sample also followed the principle of equal representation of age, gender, social and professional groups. The mean age of the respondents was 18 ± 0.83 years. Gender distribution was as follows: in 2017, 51% of women ($n=427$) and 49% of men ($n=411$); in 2021, 52% of women ($n=208$) and 48% of men ($n=192$), respectively, which, in accordance with the table by V.I. Paniotto can be considered a representative sample. The following methods were used in our study: bibliographic, analytical, mathematical, statistical, and sociological (questionnaire). The survey was conducted using the original questionnaire consisting of 46 closed questions, combined into five major thematic blocks: assessment of the STI problem relevance, likelihood of infection risk, readiness to undergo preventive screening examinations, preferred directions for seeking medical help in the event of STI, and intention to motivate a partner for joint examination and treatment.

The collection, systematization and processing of data was carried out using Microsoft Excel 2016. Statistical analysis was performed using the PASW (Predictive Analytics SoftWare) Statistics 22 software. In the processing and presentation of data, extensive indicators were used, compared with the assessment of the significance of differences sensu Student's t-test, since for each of the studied positions, an alternative distribution of a qualitative

trait was considered and an assessment was made of the statistical significance of the difference in the extensive indicators of their prevalence. The calculated values of Student's t criterion were evaluated by comparison with tabular values; the differences were considered statistically significant at $p < 0.05$. The confidence interval for the means was calculated with a confidence level of at least 0.95.

Results

As an objective assessment of the epidemiological situation with STIs and the risk of infection, we considered awareness of the exposure to the risk of infection of all sexually active young people. This position in the 2021 survey was indicated by 54.8% of the respondents. Compared with 72.4% in 2017, the proportion of young people with such objective position has decreased significantly ($p=0.005$). At the same time, in 2021, the proportion of people who had two types of delusions has significantly increased: opinions about social specificity of STIs, i.e., conviction that only underprivileged social strata of society were susceptible to them (26.8% in 2021 vs. 7.2% in 2017, $p=0.003$) and a clearly dissident trend with an opinion that the problem of sexually transmitted diseases is exaggerated (in 2021, the share of such respondents was 9 vs. 2.5% in 2017; $p=0.008$). In 2021, the share of respondents linking the risk of sexual infection exclusively with frequent change of partners has significantly decreased (9.5% in 2021 versus 17.8% in 2017, $p=0.008$) (Figure 1).

In 2021, the readiness of young people to undergo screening examinations for sexual infections with a preventive purpose has significantly increased. The share of respondents who expressed their consent to undergo diagnostics for preventive purposes constituted 79.5% vs. 63% in 2017 ($p=0.006$).

In terms of the direction of seeking help in case of sexual infection symptoms, the largest proportion of participants in both studies (in 2017 and 2021) favored official medicine: in 2017, the proportion of people willing to seek medical help was 89.5%; in 2021, it significantly increased to 93.5% ($p=0.007$). The most significant increase in trust occurred in relation to private healthcare professionals: from 50.7% in 2017 to 73.8% in 2021 ($p=0.004$); the share of those interested in contacting the state-owned dermatovenereology service has also increased from 63.5% to 73.8% ($p=0.009$) (Figure 2). As a result, the levels of trust in specialists from the public and private healthcare systems have become similar. In addition, the proportion of young people, for whom the choice of medical organization was not essential, or else they were determined to receive consultations and undergo treatment in several institutions, has increased: in 2017, 24.7% of study participants expressed their intention to seek medical help at both public and private institutions, while in 2021, their share increased to 54% ($p=0.002$).

Along with the growth of trust in physicians, the level of confidence in pharmacists has also increased from 3% in 2017 to 6.8% in 2021, but the share of such respondents still remained insignificant against the general background.

The prevalence of attitudes towards self-treatment, both without going to doctors and in combination with medical consultations, increased just slightly: from 11% in 2017 to 15% in 2021 ($p=0.068$). Interest in the use of folk remedies statistically significantly increased (from 2.4 to 5.3%, $p=0.048$); on the contrary, young people began relying on their own knowledge less often, including expertise obtained

in the course of vocational training (solely 0.5% vs. 3.3% in 2017, $p=0.009$).

STIs require treatment of both sexual partners; in 2017, 91.9% of respondents were willing to share the problem and seek help together, whereas in 2021, the prevalence of this imperative attitude has decreased to 67.8% ($p=0.024$). At the same time, the prevalence of an egoistic attitude (the perception of health as a personal matter of everyone) increased from 6.6% in 2017 to 12.8% in 2021 ($p=0.009$), but the proportion of people who were afraid of ruining their relationship with a sexual partner due to illness increased even more (from 1.7% in 2017 to 19.5% in 2021, $p=0.004$) (Figure 3).

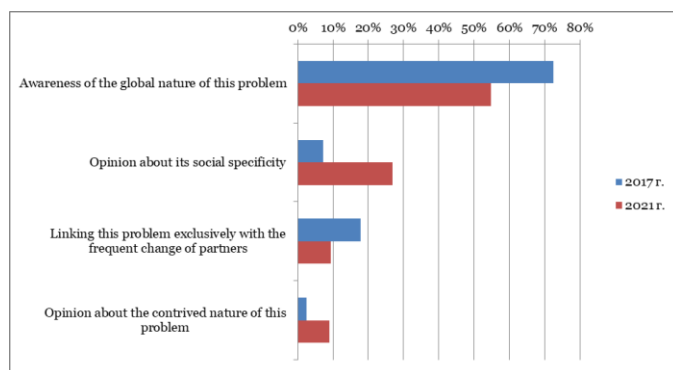


Figure 1. Changes in assessment of the STI problem relevance by young people, %

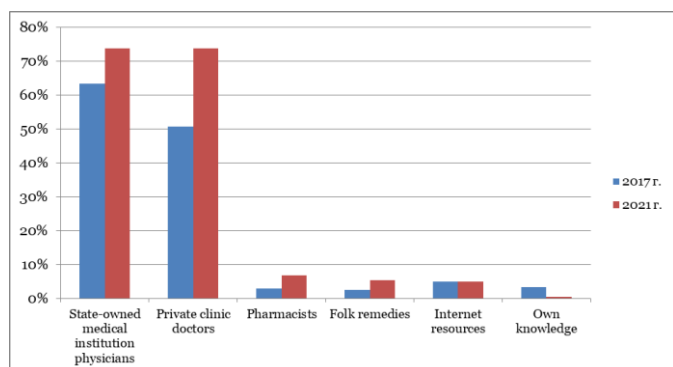


Figure 2. Preferred directions for respondents to seek medical help in the event of STI, %

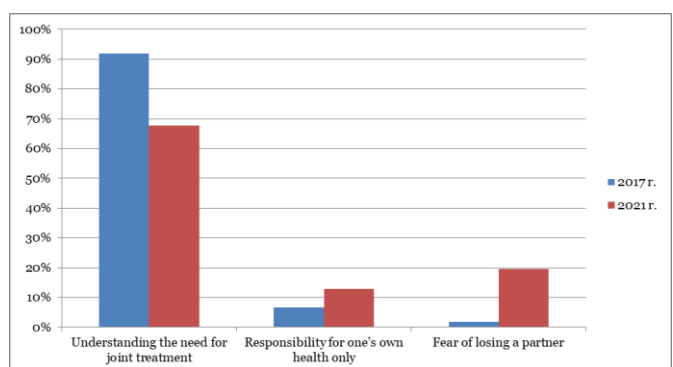


Figure 3. Prevalence of the desire to be examined and treated in conjunction with a partner among young people, %

Discussion

The predominance of topics in the mass media about COVID-19, the reduction in opportunities for preventive work among employees, the pronounced reorientation of all sanitary and educational work to safeguard the vaccination campaign are enforced measures and phenomena during the pandemic, since its scale and already existing consequences are unprecedented. As a result, we currently see the adverse consequences of such reorientation, manifested in a decline in young people's awareness of various aspects of the STI problem, a decrease in the proportion of people objectively assessing the possibility of infection risk during sexual contact, which may be associated with young people's confidence in the reliability of available contraceptive devices and their regular use. The decline in the number of those who see STIs as a global problem is accompanied by a greater prevalence of beliefs about the susceptibility of underprivileged sections of society to these diseases, and without regard to the number of sexual partners as such. At the same time, the proportion of those who hold the belief that the problem of STIs is exaggerated is also growing: such position was observed in almost 10% of interviewees, while in the pre-pandemic period this figure did not exceed 3%.

Systematizing these data, we can conclude that currently among young people, there is a widespread underestimation of the problem, the exclusion of the infection risk for themselves, which is an indicator of trouble noted as an unfavorable factor for all socially determined diseases. This trend is a direct indication of a reduction in the effectiveness of preventive work with this category of people over the past two years.

Augmented interest of young people in undergoing preventive examinations and an increase in their readiness to seek medical help when STI symptoms occur are positive trends, and they correspond to such social trends in 2020-2021 as the consolidation of society around government structures and healthcare institutions, along with improved attention to personal and public health issues [11, 12]. At the same time, against the background of the pandemic and fairly strict restrictive measures, other authors noted the growth of protest sociopolitical sentiments and spread of conspiracy theories, in which the authorities and public health care play a negative role [15-17]. Together with the activation of the anti-vaccination movement, these processes make us talk about the emergence of a new phenomenon accompanying the pandemic: the COVID dissidence. In many respects, it is similar to the previously described AIDS dissidence, but at the same time it causes larger-scale destructive events in terms of distrust in official information and public policy. By systematizing the obtained data, we can note a similar problem with STIs. E.g., the number of those wishing to seek advice and assistance from specialists representing several medical organizations within a single clinical case has more than doubled (from 24.7% to 54%). This may indicate that they do not trust the state dermatovenereology service in all matters, additionally turning to private clinics. To a lesser extent (but still statistically significant) an interest in self-treatment has also increased (from 11% to 15% of respondents). At the same time, the number of those who openly do not trust the official position of the State and the medical community has increased threefold: nearly 10% of young people think that the problem of STIs is far-fetched and exaggerated, and that preventive measures have exclusively commercial foundation. Hence, our results confirmed that the polarization of society against the

background of the coronavirus infodemic is transferred to the topic of reproductive health as well.

As for the impact of restrictive measures on interpersonal relationships, we obtained evidence solely in favor of a negative scenario: the number of people inclined to hide the problem from their partner increased nearly fourfold (from 8.3% to 32.2%) due to those who is not inclined to share medical problems, and those who are afraid of breaking up relationships because of the threat or a fait accompli of infection.

Conclusion

Our study demonstrated that the coronavirus pandemic and nationwide measures to combat it, having influenced public opinion and social wellbeing of the population, led to a polarization of young people's positions regarding sexual infections and their prevention. At the same time, in terms of attitudes towards the sexual life safety, negative trends have become more important: underestimation of infection threat, an opinion about deliberate exaggeration of the problem on the part of the State and clinicians, and unwillingness to motivate a partner for joint examination and treatment if problems arise. In contrast to reduced preventive attitude, we observed an increased understanding of the need for regular examinations and seeking medical help in the event of STI symptoms. However, practical implementation of these components mainly concerned actions in case of a suspected or confirmed infection, which can affect both the increase in the detection of diseases and the adherence of patients to treatment, but to a lesser extent could affect their prevention. In this regard, the further course of the epidemic processes of STIs becomes difficult to predict, and approaches to preventive work require a significant revision, specifically, a greater attention to the development of an understanding of the STI global threat and a sense of responsibility for the health of a partner and family in young people.

Conflict of interest: None declared.

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