

## SOCIOLOGICAL ANALYSIS OF REPRODUCTIVE HEALTH OF WOMEN IN ALMATY: PROBLEMS AND DEVELOPMENT PROSPECTS IN THE CONTEXT OF EDUCATIONAL REFORMS

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### Abstract

Reproductive health is a fundamental condition for a healthy society and a prosperous future for generations. In Kazakhstan, especially in Almaty, socioeconomic inequality, women's lack of awareness of risks, and limited access to health services remain key challenges. The study, based on a cross-sectional quantitative methodology, included a survey of 320 women aged 18–49 years in eight districts of the Almaty city. Results showed that 59.4% of respondents experience pelvic pain, and 48.8% report changes in menstrual pain. However, 34.4% found it difficult to assess symptoms such as pain during sexual activity, indicating stigma around discussing reproductive health issues.

The findings highlight the need for educational reforms aimed at increasing reproductive literacy. However, cultural barriers, limited access to health care, and socioeconomic inequality continue to hinder progress. To overcome these challenges, cross-sectoral strategies are needed, including the integration of reproductive health programs into educational institutions and targeted initiatives to improve health infrastructure. The results of the study offer recommendations that can be applied not only in Kazakhstan, but also in other countries with similar dynamics, creating a basis for sustainable reforms in the field of education and health.

**Keywords:** reproductive health; educational reforms; socio-economic inequality; women's health; sociology of medicine; sociology of reproductive behavior; access to health care.

### Introduction

Women's reproductive health plays a central role in the development of a healthy society and prosperous generations. The World Health Organization notes [1] that improving the reproductive health of both men and women is the basis for achieving this goal. However, women remain more vulnerable than men in health issues, due to gender imbalances in decision-making, especially in developing countries [2].

Despite the existence of numerous programs and policies aimed at improving reproductive health, their results remain limited. As studies show, over the past decades, the maternal mortality rate in developing countries has remained high, and only a few countries have been able to achieve a significant reduction in this indicator [3]. In addition, pregnancy complications, unsafe abortions and high-risk births annually take the lives of about 585 thousand women worldwide, while more than 50 million women suffer from long-term consequences of health problems in the process of creating a family [4].

In Kazakhstan, and in Almaty in particular, these global problems are manifested through local features. Social and economic inequalities, as well as differences in women's education and awareness of reproductive health risks, remain key challenges. We, the authors, believe that access to health services and educational resources in Kazakhstan is uneven, especially among women from different ethnic and economic groups.

### **Literature review**

Research on the relationship between reproductive health and social development confirms that economic development and the growth of social institutions such as public health systems, educational institutions and social services play a significant role in improving reproductive health [5]. In Kazakhstan, educational reforms aimed at increasing literacy, including sexuality education, are beginning to yield positive results.

Social development, which is defined as the process of improving the quality of life and living standards through the strengthening of social systems (Beverly and Sherraden, 'Investment in human development as a social development strategy, 1997), plays a critical role in ensuring sustainable reproductive health. According to international research (Manderson and Mark, Empowering women: Participatory approaches in women's health and development projects, 1997), social development programs are capable of transmitting the positive effects of improving reproductive health across generations. For Kazakhstan, this means strengthening both the health infrastructure and the education system in order to integrate reproductive health into overall development programs. The theoretical framework of this study is based on conceptual and methodological approaches that provide a systemic study of women's reproductive health in Almaty in the context of educational reforms. The study is based on the paradigm of social determination of health, Pierre Bourdieu's theory of social capital, the concept of reproductive literacy, and related sociological categories that allow for local social, cultural, and economic characteristics to be taken into account [6]. The paradigm of social determination of health is a fundamental approach to understanding how various social factors, such as education, economic status, gender norms, and access to health resources, influence women's reproductive health. In the context of Kazakhstan (using Almaty as an example), where there is significant social and economic inequality between different groups of the population, this paradigm allows us to consider reproductive health not only as a medical problem, but also as a result of a complex interaction of social processes. For example, in low-income areas, women are more likely to experience limited access to quality health services and information resources, which leads to increased risks during pregnancy and childbirth. Moreover, insufficient attention to gender issues in educational reforms reduces their effectiveness, which highlights the need for an interdisciplinary approach to addressing these issues.

Pierre Bourdieu's theory of social capital plays a key role in the analysis of inequalities associated with access to health and educational resources. Bourdieu argues that social, economic and cultural capital are the main determinants of social differences (Bourdieu P., Practical meaning, 2001). In the context of reproductive health, the most relevant is cultural capital, which includes knowledge, skills and attitudes formed through the education system and social institutions. For example, in Almaty, educational reforms aimed at introducing programs on sexual education and reproductive health have the potential to increase the cultural capital of women by providing them with greater access to information on family

planning, pregnancy risks and the need for preventive medical examinations. However, these reforms face the problem of uneven coverage: women from economically disadvantaged families or with low levels of education are left behind, which exacerbates social gaps. This aspect demonstrates the limitations of current approaches and requires the development of programs that take into account the social and cultural context of each group of the population. Research into women's reproductive health requires a comprehensive approach that combines theoretical understanding of the problem and empirical data analysis. The theoretical basis of the study allows us to understand the key factors influencing women's reproductive health and to determine the main areas of analysis. To confirm hypotheses related to the influence of socio-economic factors and educational reforms on reproductive behavior, it is necessary to use a methodologically verified approach that will ensure the reliability and representativeness of the data. Based on a previously conducted study, this study was adapted to analyze the frequency of symptoms related to reproductive health over the past 12 months and assess their relationship with socio-economic and educational factors.

### **Research Methodology**

In this work, a cross-sectional quantitative sociological research method was used. This allowed us to collect empirical data to analyze the state of women's reproductive health in Almaty and assess their perception of educational reforms in this area. The main focus was on identifying the frequency of symptoms associated with reproductive health and their correlation with the socio-economic and educational characteristics of the respondents.

The aim of the study was to study the state of reproductive health of women in Almaty, assess the frequency of symptoms over the past 12 months and identify problems that can be solved through educational reforms. The study also aims to identify prospects for improving reproductive health through raising awareness and access to quality health services [7].

The object of the study is women of reproductive age (18-49 years old) living in different districts of Almaty. The subject of the study is the frequency of symptoms of reproductive health, their perception by women, as well as the impact of educational reforms on awareness of reproductive risks.

A stratified random sample was used for the study. 320 women living in eight districts of Almaty were covered (40 respondents from each district). Stratification allowed us to identify groups based on key socio-demographic characteristics, including income level, education and marital status, which ensured the representativeness of the data.

Data were collected using a questionnaire, which included closed and open questions. The questions related to: Frequency of occurrence of reproductive health symptoms over the past 12 months.

The study was conducted in compliance with all ethical standards. Women's participation was voluntary, data was collected anonymously, and participants had the right to refuse participation at any time.

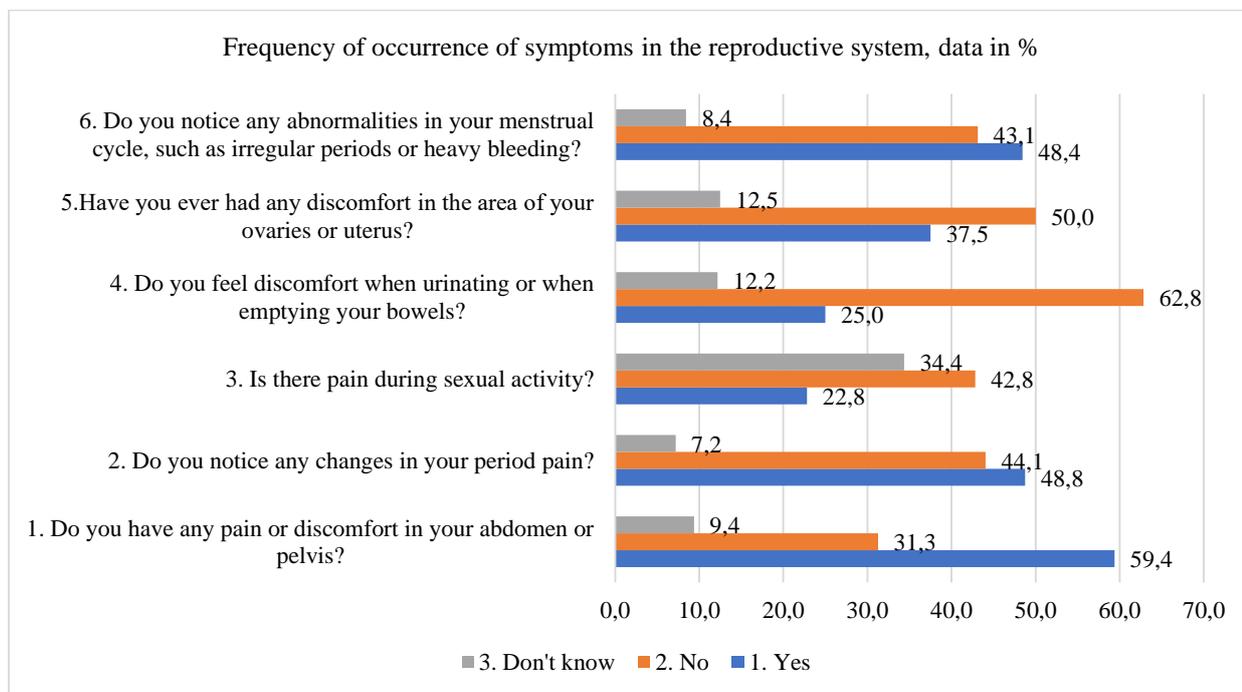
In this article, we provide only some, but important questions on our research topic, thus we want to show the main problems of women in their reproductive system and show ways to prevent the occurrence of such problems.

### **Research Results**

The data obtained allowed us to identify the frequency of symptoms associated with reproductive health in women in Almaty over the past 12 months. These data became the

basis for analyzing the impact of educational and socio-economic factors on the health of respondents. The results of the study also allowed us to determine how existing educational reforms affect the level of awareness and willingness of women to take care of their reproductive health. The following section will present the results of the frequency analysis of symptoms, which will serve as a starting point for discussing the problems and prospects for the development of women's reproductive health in the context of educational reforms.

Figure 1. Frequency of symptoms related to reproductive health over the past 12 months, n=320.



Based on the data presented in the table, it can be concluded that a significant proportion of women who participated in the study experience various symptoms related to reproductive health. High rates for a number of symptoms, such as abdominal or pelvic pain (59.4%) and changes in pain during menstruation (48.8%), indicate that the problem of reproductive health is relevant and requires a comprehensive approach to its study and solution.

The results of the analysis of the frequency of symptoms of reproductive health of women in Almaty highlight the presence of serious problems that require attention at the level of social policy and educational reforms. The high percentage of respondents with various symptoms indicates the need to strengthen the prevention and early detection of diseases. The main problems include:

1. Lack of awareness of women about the symptoms and their meaning.

The high percentage of answers in the “I don’t know” category (especially for pain during sexual activity - 34.4%) indicates that women are insufficiently informed about the signs and risks of reproductive diseases. This emphasizes the need to improve educational programs aimed at increasing reproductive literacy.

2. Uneven access to health services.

While the results do not directly address access to healthcare, they do point to hidden barriers such as low rates of preventive examinations, as evidenced by the proportion of women who found it difficult to answer a number of questions.

3. Social and cultural barriers.

The topic of sexual health remains taboo in society, which limits open discussion and help-seeking, especially for pain during sexual activity. This suggests the need to integrate sexual health issues into general education and health care programs.

### **Conclusions and Prospects for Development in the Context of Educational Reforms**

The results of the study show that women's reproductive health in Almaty faces multiple challenges that require a systemic approach to address them. The frequency of symptoms related to reproductive health indicates significant problems, such as women's lack of awareness of the signs of diseases, limited access to health services, and socio-cultural barriers to discussing sexual and reproductive health. These problems require strategic changes, in which educational reforms and the development of medical infrastructure can play a key role.

In particular, 59.4% of women reported pain or discomfort in the pelvic area, indicating the need to expand preventive measures and awareness campaigns. The high percentage of uncertain responses, such as pain during sexual activity (34.4%), demonstrates not only a low level of knowledge about reproductive issues, but also the existence of stigma around discussing sexual health. This requires eliminating taboo topics and introducing programs that increase reproductive literacy, both in the formal education system and through public campaigns. Educational reforms aimed at reproductive health must take into account local social, cultural and economic characteristics. This is especially important in the context of Almaty, where significant social and economic inequality exists. Women from low-income households face significant barriers in accessing health services and information, which highlights the need for targeted programs aimed at eliminating these barriers.

### **Recommendations**

Based on the analysis, the following recommendations can be identified that are applicable both to Kazakhstan and to other countries with similar socio-economic characteristics: Expanding educational programs on reproductive health. It is necessary to integrate courses on sexual and reproductive health into school and university curricula. This will increase women's awareness of the signs of diseases, methods of prevention and available health services. Particular attention should be paid to adapting educational materials for different cultural and social groups.

### **Conclusion**

The relevance of the study of the reproductive health of women in Almaty in the context of educational reforms is closely related to global and regional challenges associated with improving public health and improving the quality of education. The scientific and practical conference "The Third Renaissance: the role and prospects of the humanities and exact sciences in the process of educational reforms in the field of medicine and pharmaceuticals" creates a unique platform for discussing strategies to improve the effectiveness of educational and medical reforms in Central Asian countries, including Kazakhstan and Uzbekistan. In the context of this conference, our work makes an important contribution to understanding how educational initiatives can improve women's knowledge about reproductive health, strengthen preventive medicine and overcome social barriers.

Uzbekistan's strategy "Attention to the person and quality education" resonates with the aim of our study: to show how educational reforms can become a tool for improving women's health, reducing the level of reproductive diseases and improving their quality of life.

Scientific discussions held within the framework of the conference emphasize the importance of an interdisciplinary approach, which confirms the significance of integrating educational, medical and social reforms to achieve sustainable development of society.

### Discussion

The results of this study show that educational reforms have the potential to significantly improve women's reproductive health, but they require taking into account cultural and socio-economic characteristics. For countries such as Kazakhstan and Uzbekistan, key challenges remain uneven access to health and educational services, as well as the lack of integration between these spheres. Future research should aim to develop intersectoral programs that integrate education, health and social support to improve the health and quality of life of women in Central Asia.

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