

THE INFLUENCE OF SOCIO-ECONOMIC AND PSYCHOLOGICAL FACTORS ON THE QUALITY OF LIFE OF WOMEN WITH OVARIAN CANCER (ON THE EXAMPLE OF THE ABAY REGION, KAZAKHSTAN)

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ABSTRACT

Relevance: This study analyzes the health status of women diagnosed with ovarian cancer, with a particular focus on identifying factors that influence their quality of life and evaluating their access to healthcare services and the level of disease-related awareness. Ovarian cancer remains one of the most prevalent oncological conditions affecting women, and its frequent late-stage diagnosis significantly contributes to poor prognostic outcomes. It is important to understand how different aspects of a patient's life affect their emotional and physical well-being.

The study aimed to investigate the impact of socio-economic and psychological factors on the quality of life of women diagnosed with ovarian cancer in the Abay Region, and to evaluate the existing relationships between factors within the framework of a multicenter study.

Methods: The study included 35 women with a verified ovarian cancer. Data was collected using a questionnaire comprising items related to travel time to healthcare facilities, educational attainment, marital status, financial circumstances, caregiving responsibilities, and the range of symptoms experienced by participants. Both quantitative and qualitative analytical methods were applied to interpret the collected data.

Results: A total of 68.6% of participants reported a travel time of 30 to 60 minutes to reach a healthcare facility, a factor that may negatively influence their overall well-being. Regarding educational attainment, 54.3% of the women had completed secondary vocational education. Similarly, 54.3% of respondents were married, suggesting the presence of a potential source of social support. In terms of economic status, 48.6% rated their income as average, which may have implications for their ability to access timely and comprehensive treatment. Additionally, 68.6% of participants reported having no caregiving responsibilities, potentially reducing their emotional burden. The most frequently reported symptoms were general weakness (48.6%) and abdominal enlargement (57.1%). Notably, the majority of respondents (42.9%) sought care from gynecologic oncologists.

Conclusion: The study found that socio-economic factors such as education level and financial status have a significant impact on the quality of life of women with ovarian cancer. A considerable proportion of participants reported reasonable travel times to healthcare facilities and access to medical specialists, underscoring the critical role of timely diagnosis and appropriate treatment in managing the disease. However, there is a need to increase awareness of the disease and access to psychological support.

Keywords: ovarian cancer, quality of life, anxiety and depression, oncopsychology, emotional well-being, family support.

Introduction: Ovarian cancer (OC) is one of the most dangerous gynecological malignancies. According to Globocan, in 2024, OC was the eighth most common cancer among women, with 324,603 new cases reported worldwide. The highest incidence was recorded in Europe and the CIS countries, including Latvia and Russia. Forecasts indicate a significant increase: up to 503,448 new cases are expected annually by 2050, an increase of more than 55% [1]. Five-year survival rates for OC in developed countries are 36-46%, while in low- and middle-income countries (LMICs) they are significantly lower [2].

In China, OC is the second most common gynecological cancer in women and has one of the highest mortality rates (21.6%) [3]. In the United States, 21,179 new cases of OC and 13,230 deaths are expected in 2022. According to data for 2024, 19,680 new cases and 12,740 deaths are expected, with a five-year survival rate of about 50.8% [4].

In Kazakhstan, ovarian cancer ranks 8th among all oncological diseases in women and is the third most common gynecological cancer. In 2023, 1,251 new cases were registered, and the mortality rate was 5.3 per 100,000 women [5]. The highest number of cases was detected in Almaty

(228) and the Karaganda region (98), while the lowest rates were observed in the Ulytau region (8 cases). In most regions of Kazakhstan, an increase in the incidence rate is recorded, which may be due to improved diagnostics and increased public awareness [6].

Ovarian cancer is asymptomatic in its early stages, making early diagnosis difficult. Most diagnoses are made at stages III-IV of the disease, when the five-year survival rate is less than 20% [7].

In addition to clinical and statistical aspects, it is essential to consider the disease's impact on patients' quality of life. Treatment of ovarian cancer – primarily surgery and chemotherapy – is associated with physical and psychological stress: pain, fatigue, fear of relapse, depression, sleep disturbance, and social adaptation [8]. Long-term side effects, lifestyle changes, and fear of disease progression significantly worsen the general condition of patients [9].

Results of international studies show that socio-economic status, level of education, marital status, mental health, caregiving responsibilities, financial difficulties, and level of awareness all have a significant impact on the quality of life of women with ovarian cancer [10]. It has also been shown that lack of support, especially emotional and social, worsens the subjective perception of the disease and reduces treatment adherence [11].

In the context of Kazakhstan, research on the quality of life of women with ovarian cancer remains extremely limited, especially at the regional level. The Abay region is one of the country's new regions, characterized by a predominantly rural population and limited access to specialized oncological care. This is why studying this population within the framework of a multicenter study is justified and relevant [12].

Studying the relationship between socio-economic and psychological factors and quality of life will help identify vulnerable patient groups and develop more targeted support measures, both at the clinical practice level and at the regional healthcare program level [13].

The study aimed to investigate the impact of socio-economic and psychological factors on the quality of life of women diagnosed with ovarian cancer in the Abay region, and to evaluate the existing relationships between factors within the framework of a multicenter study.

Materials and methods: This study is part of the international *Every Woman Study™* project organized by the World Ovarian Cancer Coalition (WOCC) and the International Gynecologic Oncology Society (IGCS), and aimed at assessing the epidemiological and clinical characteristics of ovarian cancer in LMICs [14]. The project includes more than 2000 women from 22 countries, with up to 10 centers in each country. For several countries, this was the first experience of participating in national or international studies. During the data collection process, the researchers encountered several organizational and logistical challenges, including the need to account for language barriers, litera-

cy levels, and access to the Internet (surveys were conducted in both paper and electronic formats), as well as ensuring fair access to publications and funding.

The objectives of the Every Woman Study™ that are relevant to our research are:

- To estimate the prevalence and incidence of ovarian cancer in LMIC countries, taking into account age and ethnic characteristics;
- Determination of risk factors and prognosis of the disease;
- Analysis of the availability and quality of medical care (diagnostics, surgery, chemotherapy, palliative care);
- Identification of social, economic, cultural, and geographic barriers to accessing health care;
- Evaluation of the need and effectiveness of palliative and psychosocial support.

Methodology of the local study: As part of the Kazakhstani part of the Every Woman Study, 35 women with a confirmed diagnosis of ovarian cancer living in the Abay region took part in the study. A structured questionnaire adapted from the main toolkit of the Every Woman Study [14] was used to collect data. The questionnaire included sections on:

- socio-economic characteristics;
- access to health care;
- psychological aspects;
- symptoms and types of treatment;
- quality of life.

The analysis was conducted using quantitative methods, including correlation analysis and multiple regression, to identify relationships between socio-economic and psychological variables and quality of life indicators of patients.

Study cohort: A total of 35 women were surveyed, all of whom live in Semey, Republic of Kazakhstan, and are registered with the D-registration. They are observed and undergo treatment at the Center for Nuclear Medicine and Oncology of the Abay Region Health Administration (CNMO, Kazakhstan). All women included in the study were also diagnosed at the CNMO.

Inclusion criteria:

- women aged 18 to 99 years;
- availability of informed consent to participate in the study;
- The patient had been diagnosed with ovarian cancer within the previous five years (at the time of inclusion in the study).

Exclusion criteria:

- The patient was at the diagnostic stage, and the diagnosis had not been established;
- The patient was unable (physically or emotionally) to answer the questionnaire questions;
- The patient had been diagnosed with mental health problems (dementia, delirium, psychosis) and/or has learning difficulties.

Results:

Demographic characteristics and anamnesis. When selecting patients for the survey, in 6 cases (17.1%), women were invited who had been observed in our center for the past 5 years. Those who had recently visited an oncogynecologist or had undergone special treatment (in particular, chemotherapy courses) made up the majority of the surveyed women, 23 (65.8%). Another 6 (17.1%) women who were surveyed had already received special treatment at the beginning of the study.

Table 1 presents the age at diagnosis of ovarian cancer. The lowest ages were 25, 33, 35, and 44 years, and the highest were 67, 68, and 69 years.

Figure 1 shows the distribution of histological types of ovarian cancer among the surveyed women.

The data in Figure 1 show that epithelial forms of ovarian cancer, in particular without specifying the subtype, are the most common among the women surveyed. This is important information for understanding the epidemiology and clinical features of ovarian cancer in this group of patients.

Table 1 – Age at diagnosis, years (n = 35)

Unique values	Minimum age	Maximum age	Middle age	Standard deviation	Percentile of patient age at diagnosis (years)						
					0.05	0.10	0.25	0,50 Median	0.75	0.9	0.95
0.0%	23	69	56.63	10.59	34.40	44	53	58	64.50	67.60	69

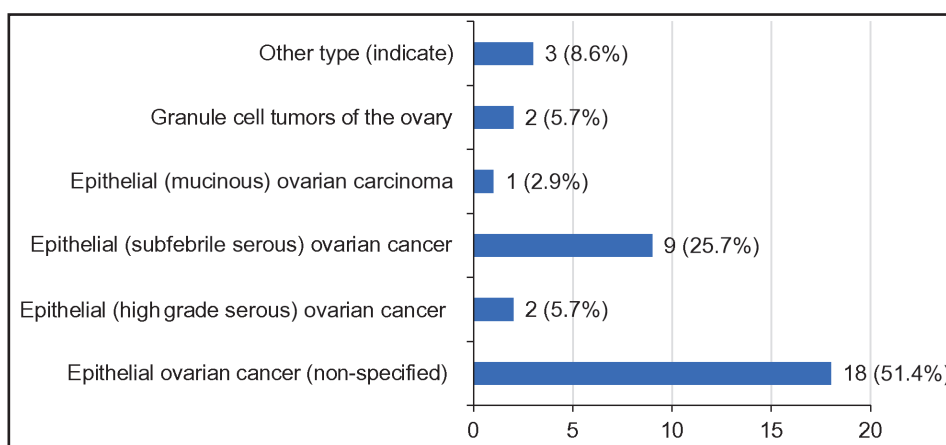


Figure 1 – Histological types of ovarian cancer among the surveyed patients (n=35)

Staging of ovarian cancer in women included in the study was performed mainly after surgical intervention – 32 (91.4%). Only three (8.6%) of the surveyed women had their stage diagnosed based on examination and biopsy data.

At the first stage of the survey, it was also analyzed at what stage, according to the FIGO (International Federation of Gynecology and Obstetrics) classification, the disease was diagnosed (Figure 2).

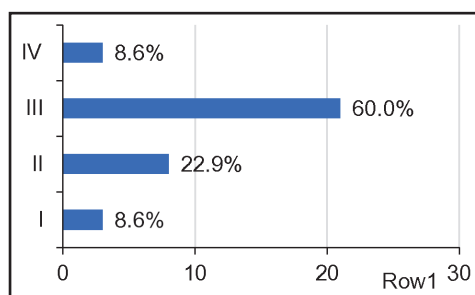


Figure 2 – Distribution of disease stages according to the FIGO classification among the surveyed women (n=35)

Among the women surveyed, only 1 (2.9%) did not undergo surgical intervention, while 8 (22.9%) patients had radical surgery, and the rest – 26 (74.3%) – did not undergo full surgical intervention.

Results of the survey. The average time spent by patients on the way to the hospital was analyzed (Figure 3).

Time spent to travel to the Center for Nuclear Medicine and Oncology of the Abay Region Health Department – less than 15 minutes for 4 (11.8%) and 15 to 30 minutes for 8 (22.9%) women – significantly affected their well-being. Most women spent 30-60 minutes on the road, with 10 (28.6%) doing so, while 4 of them (11.4%) – mainly city res-

idents – had to travel for 1-2 hours. Out-of-town women spent 2 to 5 hours on the road – 1 (5.7%), over 5 hours – 4 (11.4%), and more than 24 hours – 3 (8.6%).

Among the surveyed patients, one woman (2.9%) had a basic education; most had secondary education – 10

(28.6%), secondary specialized or technical education – 19 (54.3%). Five (14.3%) of the surveyed women had higher education.

The women surveyed indicated their marital status at the time of diagnosis (Figure 4).

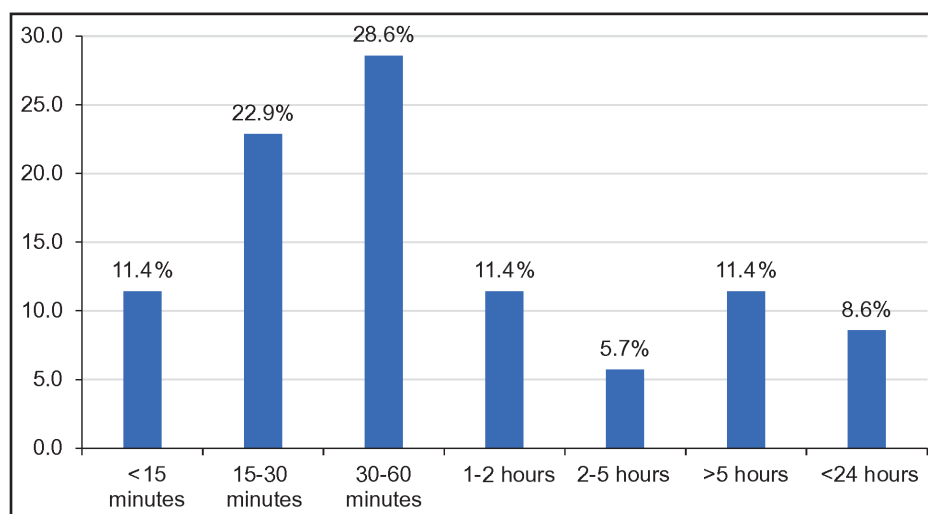


Figure 3 – Average travel time among women surveyed (n = 35)

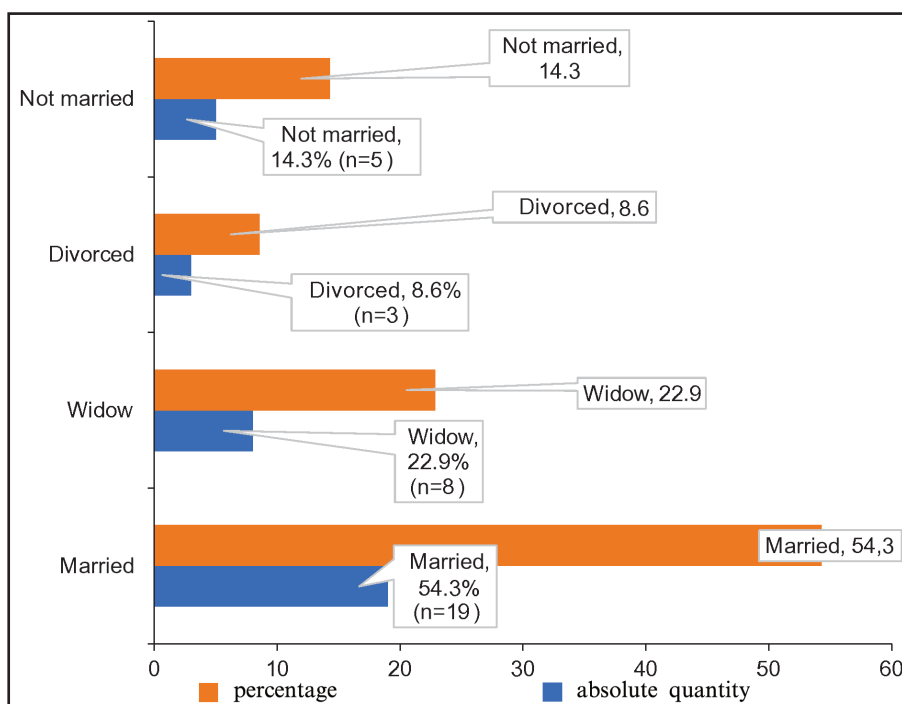


Figure 4 – Marital status of the women surveyed (n = 35)

The financial situation at the time of ovarian cancer diagnosis was also specified. Eight (25.7%) women assessed their financial situation as “below average”, 16 (48.6%) patients reported the average income level, and 4 (12.5%) women assessed their financial situation as “above average”. At the same time, 4 (12.5%) women surveyed preferred not to answer this question.

The quality of life, as well as emotional and physical well-being, is also affected by caring for loved ones and

managing household responsibilities. The patients answered the question about the presence or absence of responsibilities for caring for other family members (Figure 5).

At the time of diagnosis, most women had the status of “employed” (n = 15) or were retired (n = 14), which reflects the mixed social profile of the patients (Figure 6).

At the time of diagnosis, women had the following gynecological status (there could be several answers to the question, as this affected the prognosis and identification

of the presence of risk factors for the development of ovarian cancer among respondents):

- menopause occurred - 11 (31.4%),
- absence of childbirth - 5 (14.3%),
- one birth - 5 (14.3%),
- birth twice - 6 (17.1%),
- three or more births - 13 (37.1%),
- breastfeeding - 13 (37.1%),
- taking oral contraceptives before 5 years - 1 (2.9%),
- taking oral contraceptives from 5 to 10 years - 1 (2.9%),
- infertility treatment - 1 (2.9%).

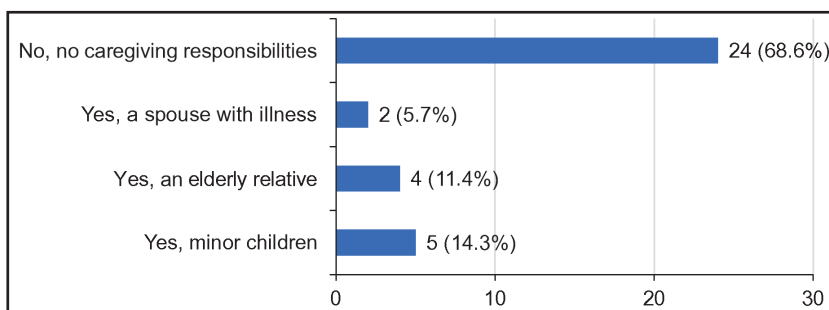


Figure 5 – Presence or absence of care responsibilities in the family among the women surveyed (n=35)

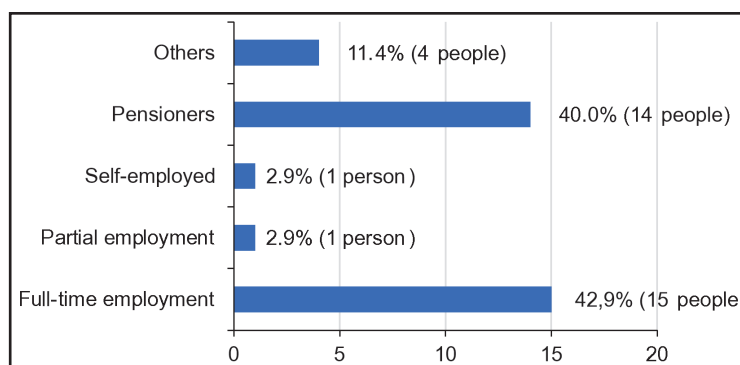


Figure 6 – Employment status of the women surveyed (n=35)

Taking into account the high risk of heredity in the development of ovarian cancer, the oncologic history of the women surveyed was assessed. At the same time, 16 (45.7%) women indicated the presence of oncologic disease in relatives, 15 (42.9%) noted the absence of an aggravated oncologic history, and some women – 4 (11.4%) – experienced difficulty in answering this question.

Among the women surveyed, only 4 (11.4%) participants knew enough information about the diagnosis of ovarian cancer, 17 (48.6%) had heard about it, but did not know full information, and 14 (40.0%) did not know anything about the disease.

The symptoms that bothered the women before the diagnosis were also assessed. The survey results are presented in Figure 7.

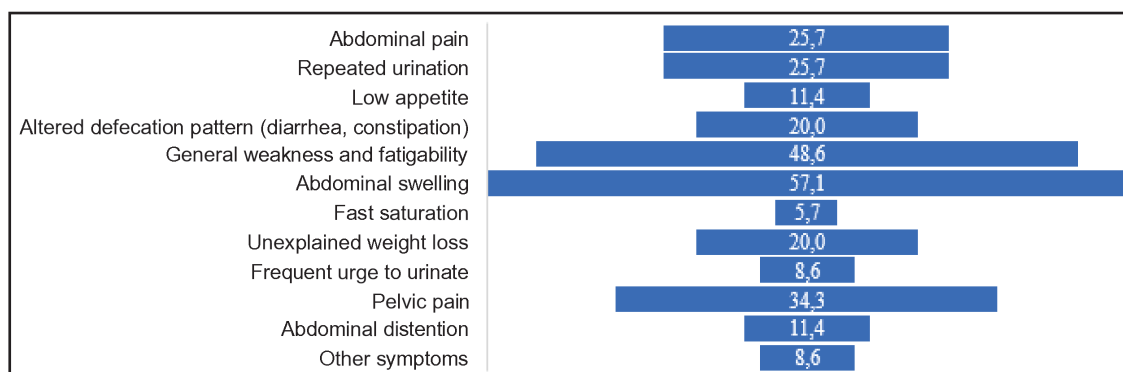


Figure 7 – Symptoms present before the diagnosis of ovarian cancer was established in the surveyed women (n=35)

Among the most common symptoms, women noted general weakness and fatigue - 17 (48.6%), an increase in

abdominal size - 20 (57.1%), pain in the pelvis bothered 12 (34.3%) patients, while abdominal pain and frequent uri-

nation were noted in 9 (25.7%) cases, respectively. The remaining symptoms bothered patients less often.

Upon discovering alarming symptoms, most women turned to specialized specialists: to a gynecologist in 13 (37.1%) cases and directly to an oncogynecologist in 15 (42.9%) cases. Only in 7 (20.0%) cases did patients turn to other specialists (probably emergency doctors, general practitioners, healers, gastroenterologists in connection with non-specific complaints, an endocrinologist, etc.).

Significant delay in diagnosis is one of the main problems in ovarian cancer. In most cases, the diagnosis was established only 2-6 months after the first visit to the doctor.

The main reasons included long waits for follow-up examinations and surgery, infrequent visits to the doctor, and territorial remoteness from medical institutions, which is especially relevant for rural areas.

According to the survey, the time from diagnosis to treatment was less than three months. At the same time, patient satisfaction with the doctors' actions during the examination, diagnosis, and treatment period was more than 70%.

When undergoing special treatment, all patients experience a wide range of side effects. When answering the questionnaire, patients most often indicated the following effects (Figure 8):

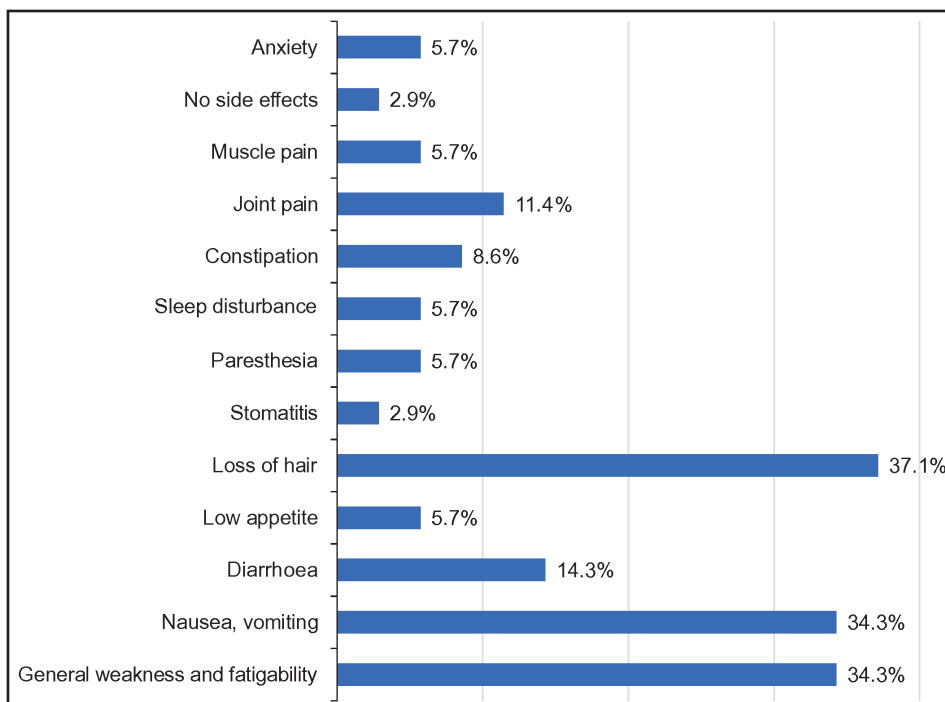


Figure 8 – Side effects during special treatment for ovarian cancer (n=35)

The questionnaire also inquired about the participation of medical workers in addressing side effects and the effectiveness of their actions. The results were distributed as follows: "yes, very" - 13 (37.1%); "yes, to some extent" - 19 (54.3%). The remaining respondents answered negatively or refrained from answering.

The questionnaire also included a question about the use of alternative means (alternative medicine, dietary supplements, etc.). The answers were "yes, all the time" - 3 (8.6%), "yes, at some point" - 6 (17.1%), "no, but I thought about it" - 5 (14.3%), and "no" - 18 (51.4%).

When asked about periods and moments of need for emotional support, respondents answered as follows (Figure 9):

The questionnaire also included a multiple-choice question: "Are there any particular problems you encountered?" Figure 1 shows the most common responses.

Patients, namely, did not select some answer options: fear of death, difficulties returning to "normal life" after treatment, partner or spouse leaving, feeling isolated, feeling unable to connect with other people, loss of fertility, regaining sexual

intimacy with a partner, or overcoming menopause.

There was also a question about whether the women met and talked with other women or groups of women with ovarian cancer after diagnosis. The answers were as follows: "yes, we talked in person" - 10 (28.6%), "yes, we talked as part of an oncology group" - 6 (17.1%), "yes, we talked online (social networks, chat, forum)" - 1 (2.9%), "yes, we talked on the phone" - 2 (5.7%), and "no" - 16 (45.7%).

Other questions concerned the practical support that patients needed in connection with the established disease of ovarian cancer (it was possible to choose several answers) (Figure 12).

It was also specified who exactly provided the necessary practical support. The answers were as follows: family members - 23 (65.7%), friends - 5 (14.3%), someone else - 1 (2.9%), no one and/or herself - 0 (0.0%).

The questions also concerned financial problems. Figure 13 shows how the respondents' answers to the question "Did the diagnosis of ovarian cancer affect the financial situation?" were distributed.

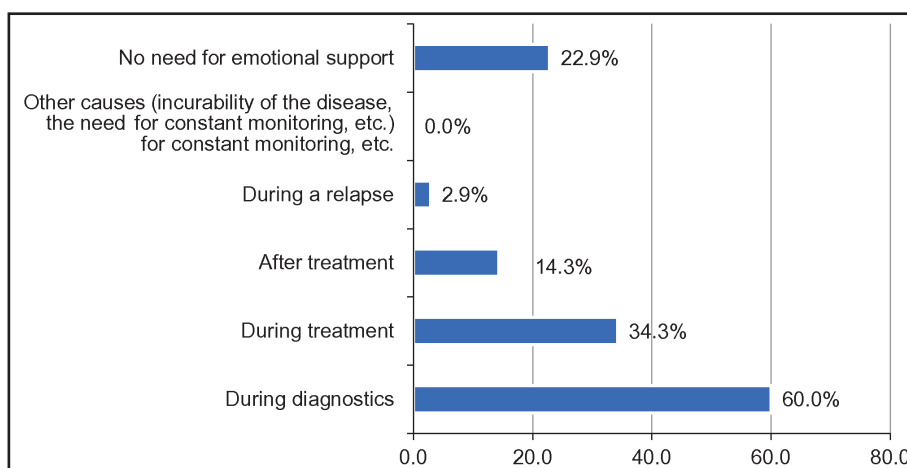


Figure 9 – Periods and moments, when the respondents need emotional support (n=35)

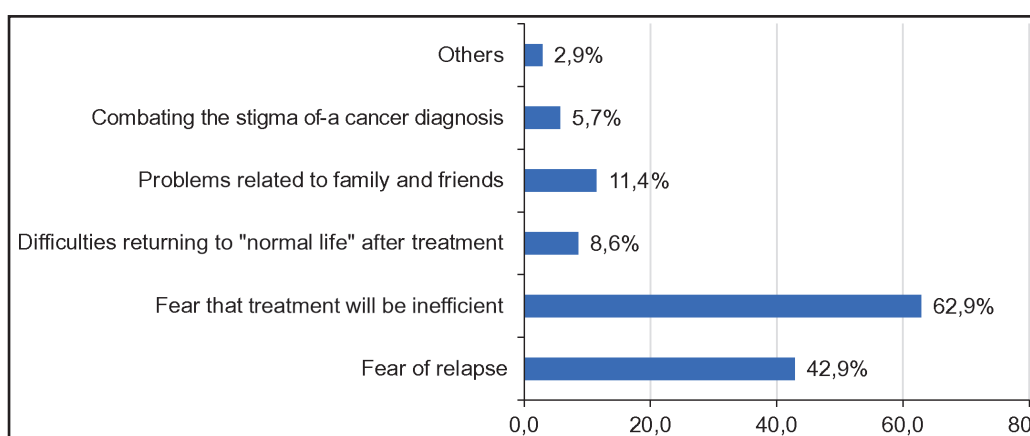


Figure 10 – Specific problems encountered by surveyed women with ovarian cancer (n=35)

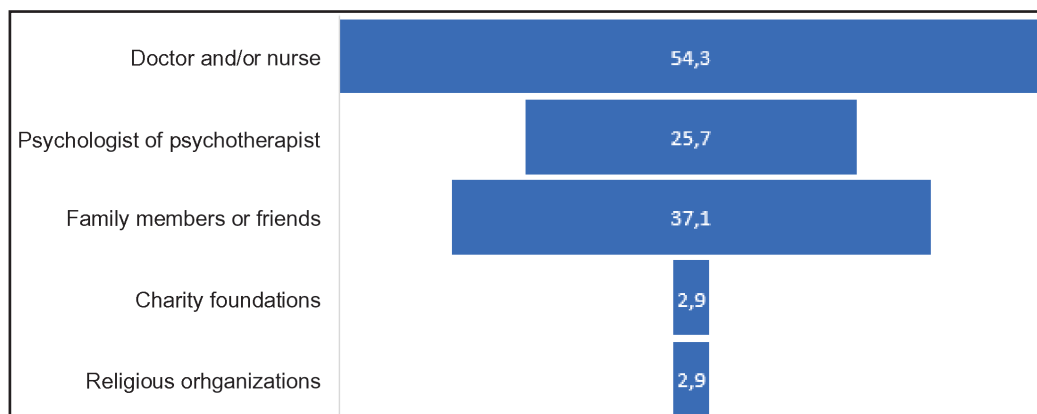


Figure 11 – The parties women with ovarian cancer apply to when they need emotional support, in % (n=35)

The questionnaire included a question regarding information and its necessary sources when identifying ovarian cancer in patients. Most often, respondents indicated doctors as a source of information – 26 (74.3%) or nurses – 3 (8.6%). One patient (2.9%) indicated that she contacted charitable organizations. Some respondents answered that they did not need help – 6 (17.1%).

Considering the relevance of digitalization of health-care, the questionnaire included a question regarding the information space: did patients search for information

about their diagnosis on the Internet, and several answer options could be given. The patients answered: “yes, and I found useful information in Kazakh” – 24 (68.6%), “yes, but I did not find any useful information in Kazakh” – 7 (20.0%), “I do not have easy access to the Internet” – 1 (2.9%) and “no, I did not use the Internet to search for information” – 1 (2.9%).

There was also a question about how willing patients were to participate in clinical research (multiple answer options) (Figure 14).

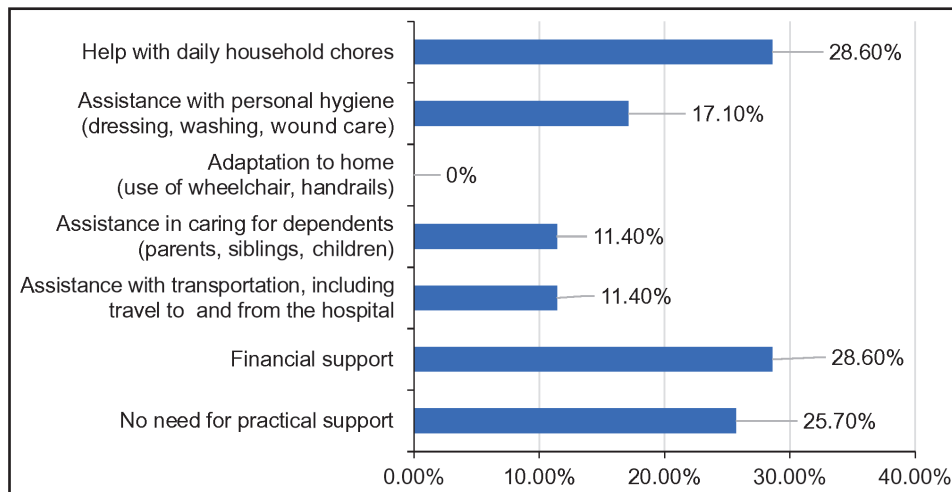


Figure 12 – Practical support required for women with ovarian cancer (n=35)

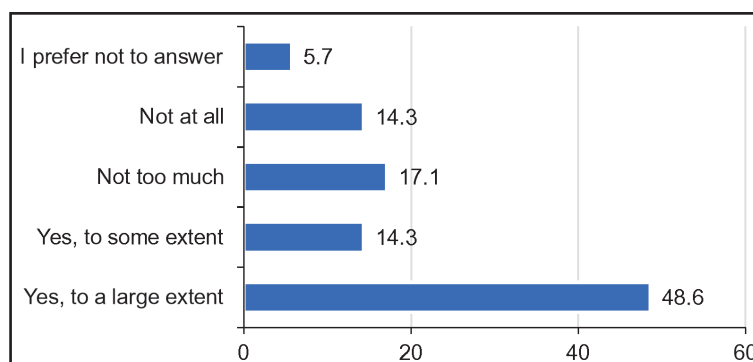


Figure 13 – Impact of ovarian cancer diagnosis on women's financial situation (n=35)

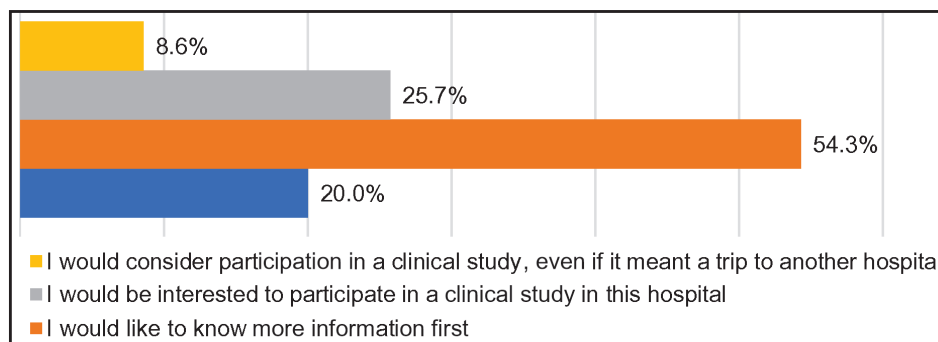


Figure 14 – Readiness of women with ovarian cancer to participate in clinical research (n=35)

In the final part of the questionnaire, answer options were offered for improving the diagnosis and treatment of women with ovarian cancer: what, in the opinion of women who have encountered this problem, requires development and investment (from 1 to 3 answer options).

Participants were also asked to select the areas that they believed were most important for improving ovarian cancer care (multiple answer options) (Figure 15).

Discussion: The obtained results confirm the main conclusions of the international study: social and psychological factors play a key role in the prognosis and quality of life of patients with ovarian cancer. Detailed information on global methodologies and conclusions is presented in the article, "The World Ovarian Cancer Coalition Every

Woman Study: Identifying challenges and opportunities to improve survival and quality of life," and on the WOCC website [15].

A detailed analysis of the study and comparison with the results of other authors allows for a deeper understanding of the factors affecting the quality of life of patients with ovarian cancer. The study emphasizes the importance of timely access to treatment and diagnosis. One of the key problems for women from remote areas is the long time they spend on the road to a medical facility, which has a negative impact on their physical and emotional state. These results are confirmed by studies, such as one showing that long travel times and distance from specialized medical centers reduce patient compliance

and negatively affect survival [16]. This study also emphasizes the need to create local oncology centers, which will facilitate access to treatment, reduce waiting times, and

improve the effectiveness of diagnosis and therapy, especially for women with limited financial means for transportation [17].

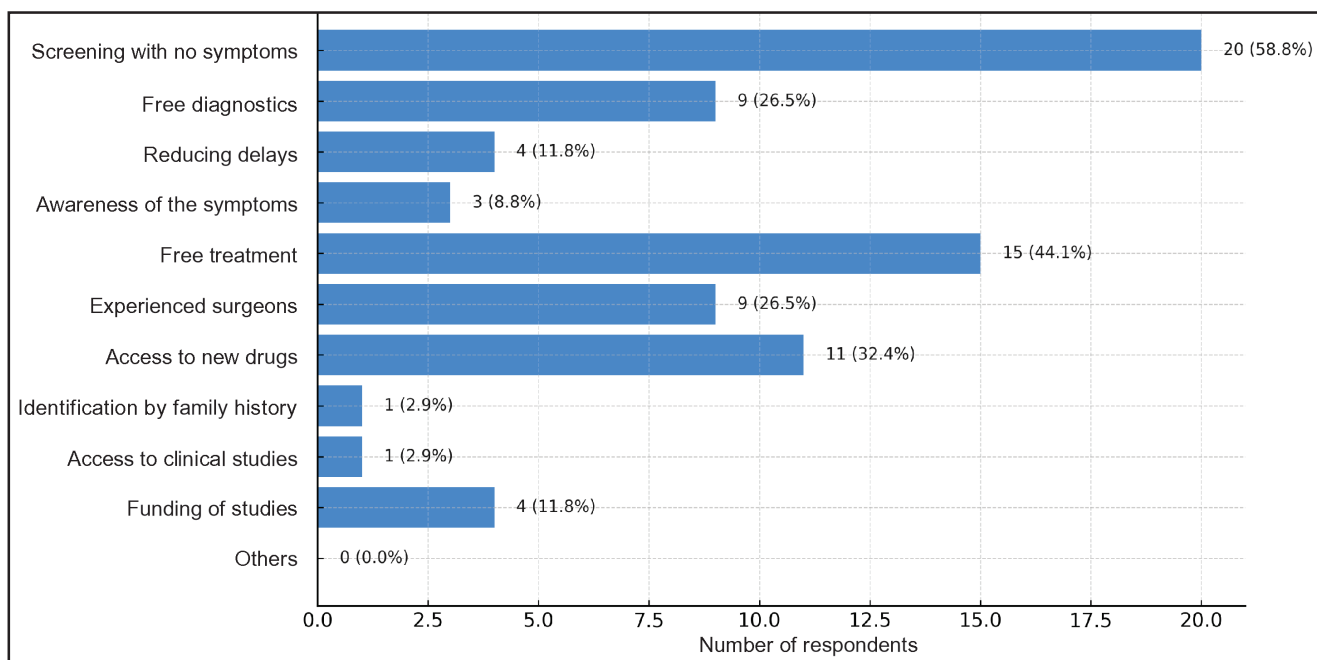


Figure 15 – Respondents' suggestions for improving care for ovarian cancer (n=35)

Social and family responsibilities have a significant impact on the psycho-emotional state of women with cancer. For example, a study (2021) showed that caring for children or elderly relatives significantly increases stress levels among patients and negatively affects their quality of life. Similar to this study, the authors' work emphasizes the importance of psycho-emotional support for women who face additional burdens associated with family responsibilities and financial difficulties. The study also highlighted the need for comprehensive support, including the assistance of specialists such as psychologists and social workers, as well as the involvement of relatives to provide care [18].

The distance from a healthcare facility has a significant impact on the physical and emotional well-being of patients. Our study found that 40% of women spend more than 30 minutes on the road, and 25.7% of out-of-towners spend more than two hours. These data confirm the findings of a systematic review [19], according to which a long distance to a healthcare facility is associated with increased stress, decreased adherence to treatment, and later stages of diagnosis, especially in patients from rural areas.

Socio-economic difficulties also play a key role. In our study, 25.7% of patients rated their financial situation as below average, which limited their ability to seek medical care on time. Comparable data are presented in a review [19], which emphasizes that economic vulnerability limits access to specialized treatment, especially in conditions of lack of insurance coverage or transportation accessibility.

Family responsibilities increase the burden on patients; in our study, 31.4% of women reported having to care for

children, elderly relatives, or a spouse with a health issue. Such additional responsibilities may interfere with regular therapy and impact recovery. Other studies [19] also show that the role of primary caregiver negatively impacts treatment adherence.

Low awareness of the disease remains a problem. In the study, almost half (40%) of patients were previously unaware of their ovarian cancer diagnosis, despite the majority having typical symptoms. These findings are consistent with a study from Palestine [20], which also found low awareness, particularly among women under 50 and those living in rural areas, leading to delays in diagnosis.

Finally, the problem of insufficient support from medical personnel is also confirmed, as only 37.1% of our respondents reported receiving a high level of professional attention. This emphasizes the need to improve the system of psychological and informational support during the treatment process, which is also reflected in the systematic review [21], which emphasizes the importance of a patient navigation program and empathy from doctors to improve overall well-being and quality of life during therapy.

The data of the present study are also supported by the results presented in a systematic review [22], which examined the impact of distance to cancer centers on the stage of diagnosis, stress, and adherence to treatment. The results of our study coincide with the key findings of this review: patients from remote areas are more likely to experience delays, emotional instability, and low engagement in therapy. In addition, a study [23] conducted in Palestine noted insufficient awareness of women about the symp-

toms of ovarian cancer, which is also similar to our data. There was a clear link between low awareness and late seeking of medical care. Comparison of these results with our data allows us to state that the described barriers are cross-country in nature and require adaptation of communication and infrastructure solutions.

The results of this study are consistent with the data of the international Every Woman Study project, which also noted significant delays in diagnosis, low awareness of disease symptoms among women, and limited access to specialized care [10]. For example, in Canada, as part of the Every Woman Study™: Canadian Edition study, 557 women diagnosed with ovarian cancer from 11 Canadian provinces were surveyed. The study showed that only 46% of patients sought medical care within the first month after the onset of symptoms, despite a high level of awareness and the availability of genetic testing in 75% of women. Access issues were especially acute for women living in remote regions, who reported significant logistical, financial, and emotional difficulties [24]. These findings are consistent with the results of our study, which also identified problems of geographic remoteness, delays in diagnosis, and insufficient systemic support. The similarity in the results highlights the universality of the barriers identified and the need for integrated approaches to addressing access and awareness issues at both national and global levels.

Conclusion: The results of this study confirm the significant impact of various factors on the quality of life of patients with ovarian cancer. Thus, the data analysis revealed that long travel times to the medical center are a significant obstacle for women, especially those residing in remote areas. This creates a need to create local oncology centers, which will improve access to timely treatment and reduce waiting time.

Patient awareness of ovarian cancer symptoms also leaves much to be desired: a significant proportion of women do not have sufficient information about the disease. This delays seeking medical care and highlights the importance of educational programs aimed at increasing cancer awareness, especially among women with low levels of education and income.

Support from healthcare professionals and loved ones is also crucial for patients' psychological well-being. Although many women experience side effects from treatment, the level of support from healthcare professionals is often insufficient. This urges the need for improved communication between doctors and patients, which can contribute to increased patient satisfaction and overall well-being.

Overall, the study highlights the importance of a comprehensive approach to treating ovarian cancer that includes not only medical aspects but also social, educational, and psychological factors. Investing in these areas can significantly improve the quality of life of women affected by the disease.

References:

1. Wang Y., Wang Z., Zhang Z., Wang H., Peng J., Hong L. Burden of ovarian cancer in China from 1990 to 2030: A systematic analysis and comparison with the global level // *Front. Public Health.* – 2023. – Vol. 11. – Art. no. 1136596. <https://doi.org/10.3389/fpubh.2023.1136596>
2. Sopik V., Iqbal J., Rosen B., Narod S.A. Why have ovarian cancer mortality rates declined? Part I. Incidence // *Gynecol. Oncol.* – 2015. – Vol. 138, No. 3. – P. 741-749. <https://doi.org/10.1016/j.ygyno.2015.07.091>
3. Gu Z.H., Qiu T., Yang S.H., Tian F.Q., Wu H. A study on the psychological factors affecting the quality of life among ovarian cancer patients in China // *Cancer Manag. Res.* – 2020. – Vol. 12. – P. 905-912. <https://doi.org/10.2147/CMAR.S239975>
4. Hollis R.L., Croy I., Churchman M., Bartos C., Rye T., Gourley C., Herrington C.S. Ovarian carcinosarcoma is a distinct form of ovarian cancer with poorer survival compared to tubo-ovarian high-grade serous carcinoma // *Br. J. Cancer.* – 2022. – Vol. 127(6). – P. 1034-1042. <https://doi.org/10.1038/s41416-022-01874-8>
5. Schilling L., Toussaint A., Weigel A., Lewitz D., Aust G., Töllner J., Oskay-Özcelik G., Hasenburg A., Löwe B., Schmalfeldt B. Predictors of quality of life and resilience in patients with ovarian cancer during the COVID-19 pandemic: A cross-sectional study // *Arch. Gynecol. Obstet.* – 2025. – Vol. 311(4). – P. 1141-1150. <https://doi.org/10.1007/s00404-024-07870-y>
6. Titi I., El Sharif N. Quality of Life and Coping Strategies of Palestinian Women with Breast Cancer in the West Bank: A Cross-Sectional Study // *Healthcare.* – 2025. – Vol. 13(10). – P. 1124. <https://doi.org/10.3390/healthcare13101124>
7. Xu M., Liang R., Zhang A., Wang Z., Zhang L. Developments in ovarian cancer markers and algorithms // *Eur. J. Gynaecol. Oncol.* – 2025. – Vol. 46 (6). – P. 14-22. <https://doi.org/10.22514/ejgo.2025.076>
8. Shiralil E., Yarandi F., Ghaemi M., Montazeri A. Quality of Life in Patients with Gynecological Cancers: A Web-Based Study // *Asian Pac. J. Cancer Prev.* – 2020. – Vol. 21, No. 7. – P. 1969-1975. <https://doi.org/10.31557/APJCP.2020.21.7.1969>
9. Vander Eerden B., de Rooij B.H., Schouten L.J., Boll D., van Hamont D., Vos M.C., Ezendam N.P. Quality of life among borderline ovarian tumor survivors: A comparison with survivors of early-stage ovarian cancer and a cancer-free population: A cross-sectional population-based PROFILES study // *Gynecol. Oncol.* – 2024. – Vol. 189. – P. 111-118. <https://doi.org/10.1016/j.ygyno.2023.12.009>
10. Reid F., Bhatla N., Oza A.M., Blank S.V., Cohen R., Adams T., Benites A., Gardiner D., Gregory S., Suzuki M., Jones A. The World Ovarian Cancer Coalition Every Woman Study: Identifying challenges and opportunities to improve survival and quality of life // *Int. J. Gynecol. Cancer.* – 2021. – Vol. 31, No. 2. – P. 238-244. <https://doi.org/10.1136/ijgc-2020-002015>
11. DiMattei V.E., Perego G., Taranto P., Mazzetti M., Rancoita P.M.V., Milano F., Mangili G., Rabaiotti E., Bergamini A., Cioffi R., Candiani M. Socio-demographic and psychological factors associated with quality of life of women undergoing chemotherapy treatment for gynecological cancer // *Support. Care Cancer.* – 2022. – Vol. 30. – P. 7333-7339. <https://doi.org/10.1007/s00520-022-07162-8>
12. Pozzar R.A., Xiong N., Hong F., Wright A.A., Goff B.A., Underhill-Blazey M.L., Berry D.L. Perceived patient-centered communication, quality of life, and symptom burden in individuals with ovarian cancer // *Gynecol. Oncol.* – 2021. – Vol. 163, No. 2. – P. 408-418. <https://doi.org/10.1016/j.ygyno.2021.08.019>
13. Key Statistics on Ovarian Cancer – The World Ovarian Cancer Coalition [Электронный ресурс]. – Режим доступа: <https://worldovariancancercoalition.org/about-ovarian-cancer/key-stats/>, свободный. – Дата обращения: 15.07.2025.

14. Reid F., Nyblade L., Ndlovu N., Singh P., Kumar L., Fregnani J.H.T.G., et al. The Every Woman Study™: Ovarian Cancer Patient Experience Study Protocol in Low- and Middle-Income Countries // *PLoS One*. – 2024. – Vol. 19, No. 5. – Art. e0298154. <https://doi.org/10.1371/journal.pone.0298154>
15. World Ovarian Cancer Coalition. The Every Woman Study™ [Электронный ресурс]. – Режим доступа: <https://worldovariancancercoalition.org/our-work/the-every-woman-study/>, свободный. – Дата обращения: 15.07.2025.
16. The impact of driving time, distance, and socioeconomic factors on outcomes of patients with locally advanced rectal cancer [Электронный ресурс] // *PubMed Central*, 2022. – Режим доступа: <https://pmc.ncbi.nlm.nih.gov/articles/PMC9461354/>, свободный. – Дата обращения: 15.07.2025.
17. Hong K., Liu Y., Yin H., Huang K., Pu X.L., Zhu Z.X. Identifying factors contributing to delayed diagnosis of ovarian cancer // *Int. J. Women's Health*. – 2024. – Vol. 16. – P. 1463-1473. <https://doi.org/10.2147/ijwh.s473381>
18. Ebrahimi S., Foruzande N., Hosseini S., Pakdin M., Ebrahimi A. The need for social support in adult patients with cancer // *Social Determinants of Health*. – 2021. – Vol. 7. – P. 1-17. <https://doi.org/10.22037/sdh.v7i1.35220>
19. Elattabi C., Lamchabek N., Boutayeb S., et al. The Impact of Travel Distance on Cancer Stage at Diagnosis for Cancer: A Systematic Review // *Int. J. Environ. Res. Public Health*. – 2025. – Vol. 22. – Art. No. 518. <https://doi.org/10.3390/ijerph22040518>
20. Elshami M., Tuffaha A., Yaseen A., et al. Awareness of ovarian cancer risk and protective factors: A national cross-sectional study from Palestine // *PLOS ONE*. – 2022. – Vol. 17 (3). – Art. no. e0265452. <https://doi.org/10.1371/journal.pone.0265452>
21. Chen M.C., Wu V.S., Falk D., Cheatham C., Cullen J., Hoehn R. Patient Navigation in Cancer Treatment: A Systematic Review // *Curr. Oncol. Rep.* – 2024. – Vol. 26. – P. 504-537. <https://doi.org/10.1007/s11912-024-01514-9>
22. Elattabi C., Lamchabek N., Boutayeb S., et al. The Impact of Travel Distance on Cancer Stage at Diagnosis for Cancer: A Systematic Review // *Int. J. Environ. Res. Public Health*. – 2025. – Vol. 22. – Art. No. 518. <https://doi.org/10.3390/ijerph22040518>
23. Elshami M., Tuffaha A., Yaseen A., et al. Awareness of ovarian cancer risk and protective factors: A national cross-sectional study from Palestine // *PLOS ONE*. – 2022. – Vol. 17 (3). – Art. no. e0265452. <https://doi.org/10.1371/journal.pone.0265452>
24. Reid F., Tone A., Boghosian T., et al. Understanding the experience of Canadian women living with ovarian cancer through the Every Woman Study™: Canadian Edition. Ovarian Cancer Canada, 2022. — Survey of 557 women; comparison across 11 provinces. Available from: <https://ovariancanada.org/articles/every-woman-study-canadian-edition>

АНДАТПА

АНАЛЫҚ БЕЗ ОЫРЫ БАР ӘЙЕЛДЕРДІҢ ӨМІР СҮРУ САПАСЫНА ӘЛЕУМЕТТІК-ЭКОНОМИКАЛЫҚ ЖӘНЕ ПСИХОЛОГИЯЛЫҚ ФАКТОРЛАРДЫҢ ӘСЕРІ (ҚАЗАҚСТАН, АБАЙ ОБЛЫСЫ МЫСАЛЫНДА)

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Өзектілігі: Зерттеу аналық без ісігі диагнозы қойылған әйелдердің денсаулық жағдайын талдауға, олардың өмір сүру сапасына әсер ететін факторларды анықтауға, сондай-ақ медициналық қызметтерге қолжетімділік пен ақпараттандыру деңгейін бағалауға арналған. Аналық без ісігі әйелдер арасында кең таралған онкологиялық аурулардың бірі болып табылады, оны кеш анықтау көбінесе жағымсыз нәтижелерге әкеледі. Науқас өмірінің әртүрлі аспектілері оның эмоционалдық және физикалық әл-ауқатына қалай әсер ететінін түсіну маңызды.

Зерттеудің мақсаты – Абай ауданындағы (Қазақстан Республикасы) аналық без обырынан зардап шегетін әйелдердің өмір сүру сапасына әлеуметтік-экономикалық және психологиялық факторлардың әсерін анықтау және көп орталықты зерттеу шеңберінде факторлар арасындағы қалыптасқан байланыстарды бағалау.

Әдістері: Зерттеуге аналық без ісігі диагнозы қойылған 35 әйел қатысты. Деректерге дейінгі жол уақыты, білім деңгейі, отбасылық жағдайы, қаржылық жағдайы, жақындарына күтім көрсету міндеттерінің болуы және науқастарды мазалайтын симптомдар туралы сұрақтарды қамтитын сауалнама арқылы жиналды. Алынған деректерді интерпретациялау үшін сандық және сапалық талдау әдістері қолданылды.

Нәтижелері: Әйелдердің 68,6%-і медициналық мекемеге 30-60 минут ішінде жететінін, бұл олардың жалпы жағдайына әсер ететінін көрсетті. Әйелдердің 54,3%-і орта кәсіптік білімге ие болды. Респонденттердің 54,3%-і үйленген, бұл әлеуметтік қолдау бар екенін білдіреді. Әйелдердің 48,6%-і табыстарын орташа деп бағалаған, бұл емдеуге қолжетімділікке әсер етуі мүмкін. Респонденттердің 68,6%-інде күтім көрсету міндеттері болмаған, бұл эмоционалдық жүктемені азайтуы мүмкін. Ең көп алаңдатқан мәселелердің қатарында жалпы әлсіздік (48,6%) және іштің үлкеюі (57,1%) болды. Көптеген әйелдер онкогинекологтарға жүгінген (42,9%).

Қорытынды: Зерттеу көрсеткендей, білім деңгейі және қаржылық жағдай сияқты әлеуметтік-экономикалық факторлар аналық без ісігімен ауыратын әйелдердің өмір сүру сапасына айтарлықтай әсер етеді. Әйелдердің айтарлықтай пайызы медициналық мекемеге уақытында жете алған және медициналық мамандарға қол жеткізген, бұл уақытылы диагноз қою мен емдеуді қамтамасыз етудің маңыздылығын көрсетеді. Алайда, ауру туралы ақпараттандыру деңгейін және психологиялық қолдауға қолжетімділікті арттыру қажет.

Түйінді сөздер: Аналық без қатерлі ісігі, өмір сапасы, мазасыздық және депрессия, онкопсихология, отбасылық қолдау, эмоционалды әл-ауқат.

АННОТАЦИЯ

ВЛИЯНИЕ СОЦИАЛЬНО-ЭКОНОМИЧЕСКИХ И ПСИХОЛОГИЧЕСКИХ ФАКТОРОВ НА КАЧЕСТВО ЖИЗНИ ЖЕНЩИН С РАКОМ ЯИЧНИКОВ (НА ПРИМЕРЕ ОБЛАСТИ АБАЙ, КАЗАХСТАН)

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Актуальность: Исследование посвящено анализу состояния здоровья женщин с диагнозом рака яичников, выявлению факторов, влияющих на их качество жизни, а также оценке доступа к медицинским услугам и уровню информированности. Рак яичников является одним из самых распространенных онкозаболеваний среди женщин, его позднее выявление часто приводит к неблагоприятным исходам. Важно понимать, как различные аспекты жизни пациенток влияют на их эмоциональное и физическое состояние.

Цель исследования – выявить влияние социально-экономических и психологических факторов на качество жизни женщин, страдающих от рака яичников, в области Абай (Республика Казахстан), а также оценить существующие взаимосвязи между факторами в рамках мультицентрового исследования.

Методы: В исследовании приняли участие 35 женщин с установленным диагнозом рака яичников. Данные были собраны методом анкетирования. Анкета включала вопросы о времени в пути до больницы, уровне образования, семейном положении, финансовом состоянии, наличии обязанностей по уходу за близкими, а также симптомах, беспокоящих пациенток. Использовались количественные и качественные методы анализа для интерпретации полученных данных.

Результаты: 68,6% женщин добирались до лечебного учреждения в течение 30-60 минут, что влияло на их общее самочувствие. 54,3% женщин имели средне-специальное образование. 54,3% респондентов были замужем, что свидетельствует о социальной поддержке. 48,6% женщин оценили свои доходы как средние, что может влиять на доступ к лечению. 68,6% респондентов не имели обязанностей по уходу, что может снизить эмоциональную нагрузку. Наибольшее беспокойство вызывали общая слабость (48,6%) и увеличение размеров живота (57,1%). Большинство женщин обращались к онкогинекологам (42,9%).

Заключение: Исследование показало, что социально-экономические факторы, такие как уровень образования и финансовое положение, оказывают значительное влияние на качество жизни женщин с раком яичников. Высокий процент женщин, добирающихся до больницы в разумные сроки и имеющих доступ к медицинским специалистам, свидетельствует о важности обеспечения своевременной диагностики и лечения. Однако необходимо повышать уровень информированности о заболевании и доступ к психологической поддержке.

Ключевые слова: рак яичников (РЯ), качество жизни, тревога и депрессия, онкопсихология, эмоциональное благополучие, семейная поддержка.

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