ORIGINAL ARTICLE

CONTENTS

Comparative analysis of the quality of life of women who left the territory of Ukraine during the ongoing Russia – Ukraine war and women who stayed at their homes

Oksana Slaba, Zoryana Sadova-Chuba, Dzvenislava Hrushkovska, Oksana Hurka
DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY, LVIV, UKRAINE

ABSTRACT

Aim: To investigate the quality of life of women who left Ukraine and those who did not leave their homes under the threat of war.

Materials and Methods: We used the WHOQOL-100 questionnaire for quality assessment. 376 young women (aged 25-44) were interviewed using a Google questionnaire (WHOQOL BREF). The respondents were divided into 2 groups: group 1 – women who left the territory of Ukraine during the war (n-176); group 2 - women who did not leave their homes (n-200).

Results: The general level of quality of life for group 1 (62.9% ± 9.3) was slightly lower than group 2 (66.7% ± 9.1). In terms of quality of life, group 2 prevails over group 1 in the domain of microsocial support.

Conclusions: Therefore, women who did not leave their homes during the full-scale invasion of Russia on the territory of Ukraine rate their quality of life higher than women who left the territory of Ukraine. Respondents of group 2 are more satisfied with their social support, sexual life, support from friends, enjoy life more than respondents of group 1.

KEY WORDS: quality of life, women, war in Ukraine

Wiad Lek. 2024;77(1):42-46. doi: 10.36740/WLek202401106 DOI

INTRODUCTION

About 13.7 million Ukrainians left their homes, more than 5.6 million of them left Ukraine, 90% of the displaced people are women and children as of May 2022, according to the International Organization for Migration (IOM) [1]. World Health Organization (WHO) data, as of November 30, 2022, shows that more than 15 million Ukrainians were forced to leave their homes. Of course, war and displacement, whether within a country or abroad, affect the quality of life.

The concept of "quality of life" (QoL) has become an integral part of the healthcare system and clinical, medical and social research in the last decade [1-5]. The gradual replacement of the biomedical model of health by the biopsychosocial model caused the need to take into account a person's subjective perception of their well-being. In 1982, Kaplan and Bush introduced the term "health-related quality of life" (the quality of life is related to health), which made it possible to distinguish the parameters that describe the state of health, care for it and the quality of medical care from the general concept of life quality.

The basis for the formation of the term *quality of life* in medicine is the definition of health given by the WHO back in 1948: "health is a state of complete physical, mental and social well-being, and not just the absence of disease and or infirmity" [2]. The main criteria of QoF were developed by WHO: physical, psychological, level of independence, social life, environment and spirituality.

The most rational and actual method of the quality of life analysis is the use of standardized questionnaires in research, which are necessary to obtain results that can be compared with each other, regardless of the country of study [6, 7]. There is a fairly significant number of HRQOL assessment questionnaires (more than 4,000), which can be divided into the following groups: universal (general) for children and adults and special (by fields of medicine, different diseases, treatment methods, individual patient's condition). According to the structure, questionnaires are divided into profile (include several scales that describe different QoL parameters, or evaluate each QoL component separately) and indices (contains a single numerical value). To assess the state of quality of life, the data obtained in the questionnaire are accordingly converted into separate numerical values (points), which allow for their statistical processing. General questionnaires are used to assess the quality of life of both healthy and unhealthy people. They

can be used in population studies to develop standards and establish various changes in the quality of life in various patients (individually or in groups), as well as to evaluate the effectiveness of various health care programs in general [2, 3].

The advantage of general questionnaires is that they allow a comparative assessment of the different medical programs impact on the effectiveness of HRQOL in individual patients and in the population as a whole [2, 3].

The process of cultural adaptation of questionnaires is extremely complex and requires the close cooperation of international developers, translators, and psychologists in order to use them in different ethnic and cultural and social groups of the population [2,7-10].

Today, a significant number of questionnaires in full and shortened versions are widely used in Ukraine, which have undergone cultural adaptation [2,4,8]. This allows them to be used in medical practice in our country. The most commonly used general quality of life questionnaires are: World Health Organization's Quality of Life - WHOQOL-100 (developed by WHO specialists), SF-36 (Item Short Health Status Survey), «EuroQoL (EQ-5D)», Q-LES-Q and others, in full and shortened versions [2,3,9,11, 12].

The WHO quality of life questionnaire - WHOQOL-100 was being created for 5 years simultaneously in the main world languages in 15 WHO centers in all parts of the world, in countries with different economic levels and cultural traditions (WHOQOL - World Health Organization's Quality of Life) according to a single methodology. From more than 1,500 questions proposed at the beginning of the questionnaire, the best 100 were selected, primarily based on the respondents' reports.

The sample was about 4,500 people. Also, at the same time, a shortened version of the WHOQOL-BREF was created, consisting of only 26 questions and 4 domains (physical and psychological well-being, self-perception, microsocial support, social well-being). It is a reliable and independent tool for assessing the quality of life of people regardless of the social, cultural, demographic and political context [6,7,13-15].

AIM

The aim of our study: to investigate the quality of life of young women who were forced to leave the country after February 24, 2022, and those who did not leave their home in Ukraine.

MATERIALS AND METHODS

376 young women were interviewed using WHO-QOL-BREF. The survey is anonymous and voluntary. The questionnaire was distributed in the form of a Google form. The criteria for inclusion in the study were 25-44 years old women with higher education who understand the content of the questionnaire. Exclusion criteria for all participants were as follows: candidates who had difficulty understanding the content of the questionnaire, found it impossible to complete the questionnaire, or candidates who have a disease that negatively affects the quality of life (absence of acute or exacerbation of chronic physical or mental diseasess at the time of the survey). The respondents were divided into 2 groups: group 1 (n=176) – women who left the territory of Ukraine during the war (temporarily living in the territory of the European Union); group 2 (n=200) - women who did not leave their homes. We chose the WHOQOL-BREF questionnaire, having obtained official permission for its use. All responses are evaluated on a 5-point scale: the higher the score – the better the quality of life. The points are calculated on a scale from 0 to 100. The survey was answered by the respondents assessing their feelings during the preceeding four weeks. The collection of respondents lasted from 02/12/2022 to 30/12/2022.

Statistical processing of the research results was carried out using the Statistica 10 software package. As a measure of internal consistency of the scale, Cronbach α was calculated for the general totality, each domain and facet. For the entire sample, Cronbach α values were acceptable (> 0.7). Quantitative features are presented as arithmetic mean ± standard error. Statistical probability was calculated using Student's t-test. Odds ratios with 95% confidence interval for percentage relative values of the results. The difference in values was considered probable at $p \leq 0.05$.

RESULTS

Among the interviewed women, 81.9% (308 women) had one higher education and 18.1% (68) had two or more higher educations. 78.5% (295) women had an average level of professional activity, 9.3% (35) - high, and 12.25 (46) - low. Finally, 58.5% women (220) assessed their income level as average, 39.45 % (148) as low, and 2.1% people (8) as high.

The results of our study showed the general level of quality of life for group 1 is 62.9% ± 9.3; group 2 – 66.7% ±9.1 ($p = 0.42$, $t = 0.79$, Cronbach $\alpha > 0.7$). As we can see, according to the assessment of the general level of QoL, group 2 slightly outperforms group 1, however, this difference is not statistically significant.

If we compare the QoL between the groups by domains and in absolute numbers, we can see that women in group 2 rate their QoL slightly higher than women from group 1, it is statistically significant in all

Table 1. Comparison of quality of life of women who left their country and those who stayed at their homes during the war in Ukraine, according to the domains

Domain	Group 1, abs.	Group 2, abs.	p	t	Group 1, %, confidence interval	Group 2, %, confidence interval
Physical and psychological well-being	19,6±2,9	20,5±3,5	*0,04	2,1	56,1±8,3 (54,9; 57,4)	58,7±10 (60,5; 55,5)
Self-perception	19,5±3	20,4±3,0	*0,02	2,3	65,1±9,9 (63,6; 66,6)	69,0±10,1 (66,9; 71,1)
Microsocial support	9,5±2,6	10,8±2,6	*0,0003	3,7	62,5±17,3 (66,1;60,9)	72,0±17,3 (68,4;75,6)
Social well-being	26,8±5,4	27,9±4,5	*0,05	1,9	67,1±13,5 (65,1; 69,1)	70,1±11,2 (67,6; 72,4)

* $p \leq 0,05$.

Table 2. Comparison of quality of life of women who left their country and those who stayed at their homes during the war in Ukraine, according to the facets

№	Question	Group 1	Group 2	p	t
1	How would you rate your quality of life?	3,5	3,5	0,9	0,1
2	How satisfied are you with your health?	2,9	3,2	*0,02	2,3
3	To what extent do you feel that physical pain prevents you from doing what you need to do?	3,9	3,8	0,2	1,3
4	How much do you need any medical treatment to function in your daily life?	3,8	4,0	0,08	1,7
5	How much do you enjoy life?	3,0	3,6	*0,0005	6,2
6	To what extent do you feel your life to be meaningful?	3,7	3,7	0,3	1,0
7	How well are you able to concentrate?	3,1	3,5	*0,001	3,3
8	How safe do you feel in your daily life?	3,4	2,9	*0,000	4,7
9	How healthy is your physical environment?	3,6	3,5	0,3	1,0
10	Do you have enough energy for everyday life?	2,8	3,2	*0,02	3.1
11	Are you able to accept your bodily appearance?	3.4	3,7	0,1	1,6
12	Have you enough money to meet your needs?	3,3	3,2	0,7	0,4
13	How available to you is the information you need in your daily life?	3,8	4,1	*0,005	2,9
14	To what extent do you have the opportunity for leisure activities?	2,7	2,9	0,3	1,0
15	How well are you able to get around physically?	3,6	3,7	0,6	1.2
16	How satisfied are you with your sleep?	2,9	2,9	0,3	1,1
17	How satisfied are you with your ability to perform your daily living activities?	3,3	3,4	0,5	0,7
18	How satisfied are you with your work capacity?	2,8	3,3	*0,0005	3,5
19	How satisfied are you with yourself?	3,1	3,4	*0,03	2,2
20	How satisfied are you with your personal relationships?	3,2	3,6	*0,009	2,2
21	How satisfied are you with your sexual life?	3,0	3,4	*0,03	2,2
22	How satisfied are you with the support you get from your friends?	3,4	3,9	*0,000	4,2
23	How satisfied are you with the conditions of your living place?	3,4	3,8	*0,0001	3,9
24	How satisfied are you with your access to health services?	3,0	3,8	*0,000	5,7
25	How satisfied are you with your transport?	3,7	3,8	0,4	0,8
26	How often do you have negative emotions such as blue mood, despair, anxiety or depression?	2,7	3,2	*0,000	5,1

* $p \leq 0,05$.

four domains (Table 1). In terms of QoL, group 2 prevails over group 1 in the domain of microsocial support (group 1 – 9.5, group 2 – 10.28; p = 0,02).

For a better understanding of what exactly had an impact on the quality of life of women, we compared the groups according to the survey questions and found that women from group 2 rate their satisfaction with life statistically significantly better (group 1 – 3.0; group 2 – 3.6; p=0.0005), are able to concentrate better (group 1 – 3.1; group 2 – 3.5; p=0.00q1), are more full of energy (group 1 – 2.8; group 2 – 3.2; p=0.02) and are more satisfied with their work capacity (group 1 – 2.8; group 2 – 3.3; p=0.0005). As mentioned above, respondents from group 2 significantly evaluate their quality of life higher according to the domain of microsocial support (Q 20, Q 21, Q 22) (Table 2)

It should be noted that women of group 1 feel significantly safer than women of group 2 (group 1 – 3.4; group 2 – 2.9; p=0.000), and experience anxiety and negative emotions significantly less frequently (group 1 – 2.7; group 2 – 3.2; p=0.000).

DISCUSSION

Previous studies and the bitter experience of other countries affected by armed conflicts show that at least one in five people has negative mental health consequences, and one in ten experiences these consequences has moderate or severe illness. The consequences of the impact of the war on the Ukrainian health care system were studied, in particular on the provision of medicines to patients in need of long-term therapy. [16] In connection with the war, the main negative factors in the deterioration of the quality of life of Ukrainians became lack of safety, decrease in income; problems with the supply of electricity, water and heat; general deterioration of housing conditions and the growth of overpopulation in the western regions, limiting accessibility quality medical services and other social services, etc. [17]

An analysis of the current state of regulatory and legal regulation of pharmaceutical provision of the population of Ukraine in the conditions of martial law was carried out. [17; 18] The frequency and manifestations of emotional disorders in children of Ukraine who were exposed to war factors in the occupied territory were studied. [19] There is a research of the impact of war conditions on the mental state and quality of life of women in the Persian Gulf ant it shows poorer quality of life and fatigue. However, in current research female military veterans of the 1990-1991 Persian Gulf War were involved but it is not too close in terms of representativeness. [20] The quality of life of Ukrainian women during the ongoing war was not studied, so our work is relevant. The above research samples are not fully representative for all population of Ukraine. The distribution of socio-demographic characteristics among the respondents does not reflect the distribution of these characteristics among the entire population of Ukraine.

Our research, despite expectations, not only showed us that women who left Ukraine after the start of a full-scale war have a lower quality of life, but also it helped us to understand the factors that make women who stayed in the country feel better. There is a need to continue this research due to the fact that the war continues, and the quality of life and health of a person is a very dynamic indicator.

CONCLUSIONS

According to the results of our research, despite expectations, women who did not leave their homes during the full-scale invasion of Russia on the territory of Ukraine rate their quality of life higher (66.7%) than women who left the territory of Ukraine (62.9%). The better quality of life of women who did not leave Ukraine is due to higher parameters of microsocial support components as social support, sexual life, support from friends, enjoy life.

REFERENCES

1. The International Organization for Migration. Data and Research. Geneva: IOM. https://www.iom.int/data-andresearch. [date access 25.06.2023]
2. Dubovyk VY, Gruzieva TS, Inshakova HV. Methods Of Assessing The Quality Of Life Of Patients With Rheumatoid Arthritis. Clinical and preventive medicine. 2022;2(20): 66-72. doi:10.31612/2616-4868.2(20).2022.08. DOI
3. Sadova-Chuba Z. Gender-sensitive assessment of quality of life in children with urinary catheter. Ekstrena medytsyna. 2021; (8.103):50–52. doi:10.22141/2224-0586.8.103.2019.192371. DOI
4. Jankowski M, Gujski M. Editorial: The Public Health Implications for the Refugee Population, Particularly in Poland, Due to the War in Ukraine. Lancet Healthy Longev. 2022; 3(10): e667-e673. doi: 10.1016/S2666-7568(22)00187-8. DOI
5. Mărcău FC, Peptan C, Gorun HT et al. Analysis of the impact of the armed conflict in Ukraine on the population of Romania. Public Health. 2022;10: 964576. doi: 10.3389/fpubh.2022.964576. DOI

6. High Commissioner's Statement to the United Nations Security Council on Ukraine. 2022. https://www.unhcr.org/admin/hcspeeches/621d33da4/high-commissioners-statement-united-nationssecurity-council-ukraine.html [date access 25.06.2023]
7. Ioffe Y, Abubakar I, Issa R et al. Meeting the health challenges of displaced populations from Ukraine. Lancet. 2022; 399(10331):1206–1208. doi:10.1016/s0140-6736(22)00477-9. DOI
8. Herasymchuk P, Fira D, Pavlyshyn A. Otsinka yakosti zhyttya, pov'yazanoyi zi zdorov'yam, u medytsyni. Visnyk medyko-biolohichnykh doslidzhen. 2021 (1): 112–122. https://doi.org/10.11603/bmbr.2706-6290.2021.1.11882 (In Ukrainian)
9. Carlos A, Moreno-Camacho, Jairo R et al. Sustainability metrics for real case applications of the supply chain network design problem: A systematic literature review. Journal of Cleaner Production. 2019; 231: 600-618. doi:10.1016/j.jclepro.2019.05.278. DOI
10. Xiaoli S, Mei L, Junjun B et al. Assessing the quality of life of infertile Chinese women: a cross-sectional study. Taiwanese Journal of Obstetrics and Gynecology. 2016; 55(2): 244-250. doi:10.1016/j.tjog.2015.06.014. DOI
11. Díaz-Ramírez J, Ignacio Huertas J, Trigos F. Aircraft maintenance, routing, and crew scheduling planning for airlines with a single fleet and a single maintenance and crew base. Computers & Industrial Engineering. 2014;75:68-78. doi:10.1016/j.cie.2014.05.027. DOI
12. Van Hemelrijck M, Fox L, Beyer K et al. Cancer care for Ukrainian refugees: Strategic impact assessments in the early days of the conflict. Journal of Cancer Policy. 2022;34: 2213-5383. doi:10.1016/j.jcpo.2022.100370. DOI
13. Liang Y, Chen Y, Yu X et al. Quality of life among women with postpartum urinary incontinence: A cross-sectional study. Gynecology and Obstetrics Clinical Medicine. 2021; 1(3): 164-168. doi:10.1016/j.gocm.2021.07.008. DOI
14. Hamrick L, Larsen SE et al. Benchmarking quality of life to posttraumatic stress disorder symptom changes in cognitive processing therapy. Journal of Anxiety Disorders. 2023;93:102647. doi:10.1016/j.janxdis.2022.102647. DOI
16. Khanyk N, Hromovyk B, Levytska O et al. The impact of the war on maintenance of long-term therapies in Ukraine. Front. Pharmacol. 2022:13. doi:10.3389/fphar.2022.1024046. DOI
17. Oliinyk PV, Chukhrai IL, Oliinyk SP. Farmatsevtychne zabezpechennia naselennia v umovakh voiennoho stanu: analiz i perspektyvy. Farmatsevtychnyi chasopys. 2022;3: 41–47. doi:10.11603/2312-0967.2022.3.13468. DOI
18. Misiura OM, Sova VA, Anapriienko OV et al. Emotsiinyi stan ditei Ukrainy, yaki zaznaly vplyvu voiennykh faktoriv na okupovanykh terytoriiakh. Medical Psyghology. 2022;18(3):60-65. doi:10.32345/2664-4738.3.2022.09. DOI
19. Misiura OM, Sova VA, Anapriienko OV et al. Emotional State Of Children Of Ukraine Who Were Affected By War Factors In The Occupied Territory. Medical Psyghology. 2022;18(3): 60-65. doi:10.32345/2664-4738.3.2022.09. DOI
20. Shastry N, Sultana E, Jeffrey M et al. The impact of post-traumatic stress on quality of life and fatigue in women with Gulf War Illness. BMC Psychol. 2022;10(1):42. doi: 10.1186/s40359-022-00752-5. DOI

CONFLICT OF INTEREST

The Authors declare no conflict of interest

CORRESPONDING AUTHOR

Oksana Slaba
Danylo Halytsky Lviv National Medical University
69 Pekapska st, 79000 Lviv, Ukraine
e-mail: oksanaslaba24@gmail.com

ORCID AND CONTRIBUTIONSHIP

Oksana Slaba: 0000-0002-4560-5156 B C D
Zoryana Sadova-Chuba: 0000-0002-9965-9723 A B C D
Dzvenislava Hrushkovska: 0000-0002-0051-279X B E F
Oksana Hurka: 0000-0001-5747-6438 B E F

A – Work concept and design, B – Data collection and analysis, C – Responsibility for statistical analysis, D – Writing the article, E – Critical review, F – Final approval of the article

RECEIVED: 25.09.2023
ACCEPTED: 08.01.2024