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Psychosocial aspect of quality of life of Polish women with breast cancer

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Abstract

Introduction and objective: Breast cancer is one of the most frequently occurring malignant tumours among women in Poland. The highest incidence of the disease is registered among women aged 50 and over. Cancer imposes a considerable psychological strain on a woman. It causes a sense of uncertainty about one's health and further life, as well as frequent problems with accepting the image of one's own body. It often results in low self-esteem and a feeling of embarrassment, accompanied by symptoms of apathy and detachment. The aim of the study was to determine the mental and social quality of life of Polish women treated for breast cancer.

Materials and methods: The research encompassed 107 women aged between 45-65 (SD=6.11) undergoing treatment for breast cancer. The WHOQOL-Bref scale was applied in the research.

Results: The social field was better evaluated in comparison with the mental sphere. There was a statistical correlation between place of residence and social sphere of quality of life (p=0.036), with higher ratings assigned by respondents residing in rural areas (M=15.36) compared with residents of towns (M=14.15).

Conclusions: Given the fact that the respondents were coping with cancer or its consequences, paradoxically, perception of the overall quality of life and examined areas was generally good, especially among women with higher education, those who were single, and those living in rural areas. Along with age, there decreases among the respondents the experienced quality of life; however, a rise of evaluations of the mental sphere accompanies the rise in education level.

Key words

quality of life, breast cancer, women, WHOQOL-Bref

INTRODUCTION

Breast cancer constitutes one of most often appearing malignant tumours amongst women. In spite of the considerable progress in the diagnosis and therapy of breast cancer, the mortality caused by this cancer still is still significant. The risk of falling ill grows with age. Falling ill among women aged less than 30 is rare. Unregistered cases of breast cancer in Poland amounts to 5% [1]. The substantial number of cases of breast cancer is recorded among women after the age of 50.

Some risk factors of having cancer include: age between 35 - 65, long duration of hormonal activity, early age of first and late menstruation; the biggest increase of the risk is regarding women whose female relatives in the first degree of kinship fell ill with the bi-lateral cancer before menopause [2].

Diagnosing breast cancer is an immensely stressful experience for the woman. After removal of the breast, the feeling of helplessness, lack of control over own health, and continuation of life can appear, as well as problems in acceptance of femininity. Moreover, cancer is disrupting for family life, and is connected with impediments in performing social and professional roles. A phenomenon of the social isolation, understood as the defence against negative emotions, often accompanies the above-mentioned feelings [3]. It has been proved that isolation can contribute to the incidence of deaths, also from breast cancer, among women with no support from close relatives, friends, or living children [4, 5]. Women after mastectomy experience the fear, more or less hidden, of recurrent disease, and depression [6, 7]. In contrast, women experiencing higher levels of social support perceive their quality of life better [8, 9]. Emotional support from family and shaping the ability to cope with stress may especially reduce the risk of mental disorders. The role of a promoter of active attitude towards the disease is played today by the Amazons' Clubs – self-help organizations which create favourable conditions for psychosocial regeneration and motivation to believe in the return to health, and thus gaining control over health and improving its quality.

Aim of the study. The purpose of the presented study was an attempt to determine the mental and social quality of life of Polish women treated for breast cancer.

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MATERIALS AND METHODS

The research material was gathered personally with the standardized research tool: of WHOQOL-Bref scale – drawn up based on WHOQOL-100, and adapted to Polish conditions by L. Wołowicka and K. Jaracz. Anonymous and voluntary research was conducted in 2009 in Radom and Lublin among 107 randomly selected women associated with Amazons' Clubs. Respondents were given questionnaires and asked for their accurate completion, any aid was granted only in the case of ambiguity concerning the content of the questions. Only persons without cognitive impairment were qualified.

In this study we referred to results from the scope of the mental and social sphere. An evaluation of the overall quality of life was also accomplished.

The raw results on the studied subjects were converted into a scale from 4-20 (apart from the overall quality of life measured in the scale from 1-5). In the final stage, the collected material was subjected to statistical analysis with the SPSS programme, using non-parametric tests (median – χ^2 test, tau Kendall – τ test, Mann-Whitney – U test). The results were accepted as statistically significant at $p \leq 0.05$.

RESULTS

The mental sphere took into account such aspects as appearance, self-esteem, positive and negative feelings, religious beliefs, and intellectual capabilities. On the other hand, the social sphere included the following subscales: social support, personal relationships, and sexual activity.

The most numerous group were women at the age of 56-60 (34.58%), individuals representing the 40-45 age groups; those aged 46-50 were least numerous (7%). The average age of the examined group was 56.88 years (SD=6.11). 82 persons (76.64%) inhabited cities and 25 were residents of rural areas (23.36%). Out of the examined women, 55 (51.40%) had a secondary education, and the least numerous group had primary education (3 persons, 2.8%). In the examined group, the majority were married women – 84 (78.50%), the minority were divorcees – 2 (1.87%) (Tab. 1).

Analysis of the data pointed to the noticeable tendency of the lowering of evaluations of individual fields of functioning ,compared with the age of the examined (the older the respondents, the worse the evaluation of functioning in individual fields). Women aged 45-50, who evaluated highly all fields and the overall quality of life, achieved the highest results. The social field was better evaluated in comparison with the mental sphere. Statistical relationship was observed between age and level of the overall quality of life (p=0.036) (Tab. 2). Along with age, the overall quality of life decreased in the examined individuals (τ=-0.182; p<0.05).

The highest results in the mental field were obtained by women with a higher education (M=14.77). Lowest assessment of this field was obtained from women with vocational, secondary education (M=13.00). In the evaluation of the social sphere, similar relations were observed (women with the higher level of education evaluated it better – M=15.31). The evaluation of the overall quality of life was also chosen more often in the group of women with higher education (M=4.03). The social field was assessed higher in comparison with the mental sphere. Conducting statistical analysis allowed the stating of a relation (p=0.038) between education and evaluation of the mental field (Tab. 2). Along with the rise in education, the level of evaluation of the mental sphere also increased (τ=0.256; p<0.01).

Table 1. Demographic factors and the investigated area and the overall quality of life

		Mental sphere			Social sphere			Overall quality of life		
Age	N	M	SD	SE	M	SD	SE	M	SD	SE
45-50 years	14	14.21	2.63	0.70	15.14	2.60	0.69	4.14	0.66	0.18
51-55 years	24	13.79	2.04	0.42	14.70	2.48	0.51	3.88	0.68	0.14
56-60 years	37	13.45	2.39	0.39	14.08	2.92	0.48	3.65	0.40	0.10
61-65 years	32	13.40	2.00	0.46	14.31	2.48	0.44	3.69	0.60	0.10
Education level										
primary	3	13.66	1.15	0.67	14.66	2.53	0.88	3.33	0.58	0.33
vocational	14	13.00	1.73	0.48	13.00	3.49	0.97	3.71	0.47	0.13
secondary	55	13.10	2.54	0.34	14.22	2.52	0.34	3.65	0.70	0.09
higher	35	14.77	1.97	0.33	15.31	2.35	0.40	4.03	0.57	0.10
Marital status										
single	6	13.80	1.92	0.86	16	0.71	0.32	4.16	0.41	0.16
married	84	13.62	2.43	0.26	14.56	2.63	0.29	3.75	0.66	0.07
widow	15	13.57	2.62	0.70	13.14	2.80	0.75	3.73	0.70	0.18
divorcee	2	11	0.00	0.00	11	0.00	0.00	4.00	0.00	0.00
Place of residence										
rural areas	25	13.88	2.57	0.51	15.36	2.41	0.48	3.88	0.60	0.12
city	82	13.54	2.35	0.26	14.15	2.66	0.29	3.74	0.66	0.07

N – number, M – average, SD – standard deviation, SE – the statistical error

Table 2. Correlations of demographic factors to the overall quality of life and areas of concern

		Age	Education level	Marital status	Place of residence
Overall quality of life	N	107	107	107	107
	χ^2	8.529	4.543	0.715	0.271
	df	3	3	3	1
	p	0.036	0.208	0.869	0.602
Mental sphere	N	107	107	107	107
	χ^2	6.026	8.427	1.231	0.151
	df	3	3	3	1
	p	0.113	0.038	0.745	0.697
Social sphere	N	107	107	107	107
	χ^2	1.338	2.796	5.644	4.355
	df	3	3	3	1
	p	0.719	0.424	0.130	0.036
Marked correlations are significant with $p \leq 05$					

N – number, χ^2 – Chi-square test, df – degrees of freedom, p – level of significance

The single women questioned assessed the individual fields of functioning and the overall quality of life better than the remaining women, and they assessed the social field as being higher. Based on the conducted analysis, statistical relations ($p>0.05$) between marital status, overall view of the quality of life, and the discussed fields, were not stated (Tab. 2).

Overall quality of life and studied fields were assessed better by respondents living in rural areas (Tab. 1). As a result of the conducted analysis, a relationship was noted with reference to the social sphere ($p=.036$) (Tab. 2). Examinations showed that in the social sphere persons living in rural areas, comparing to respondents from cities, achieved higher results. Obtained differences proved to be substantial on the assumed statistical level (at Mann-Whitney test $U=716.50$; $p<0.05$).

An overall evaluation of the quality of life was on quite a good level (M=3.77), while the average of the mental field was on the good level (M=13.62). Studying the social field , the average was attained of 14.43 (Tab. 3).

Table 3. Statistical data and the overall quality of life domains studied

	N	M	Min	Max	SD	SE
Overall quality of life	107	3.77	2	5	0.649	0.063
Mental sphere	107	13.62	7	19	2.394	0.231
Social sphere	107	14.43	7	20	2.643	0.255

N – number, M – average, SD – standard deviation, SE – the statistical error

Detailed analysis of the overall assessment of the quality of life and average values of individual fields showed a rising tendency (good marks corresponded to the better overall assessment of the quality of life in individual areas of functioning). In addition, it should be emphasized that a statistical association of the overall assessment of the quality of life existed in the examined group with the evaluation of the social field ($p=0.003$) (Tab. 4).

Table 4. Depending on the areas and the overall quality of life

	Mental sphere				Social sphere			
	N	χ^2	df	p	N	χ^2	df	p
Overall quality of life	107	19.253	12	0.082	107	26.452	10	0.003
Marked correlations are significant with p ≤ 05								

N – number, χ^2 – Chi-square test, df – degrees of freedom, p – level of significance

DISCUSSION

From the studies presented in literature, it is clear that the majority of problems occur in the mental sphere in the group of patients suffering from cancerous diseases [10, 11]. As K. A. Mika thinks, lack of faith in the effectiveness of treatment as well as difficult to overcome personal, family or professional problems, exert a powerful and direct influence on the psyche of women [12]. This assumption was not confirmed by own studies. The presented study, however, produced unexpected results because the majority of respondents (71.96%) judged their mental and public life as good. Simultaneously, the same quantity of women assessed their overall quality of life as satisfactory. The results obtained by A. Chwałczyńska did not entirely find supporting evidence in our own research in which this was much better: a satisfactory level of quality of life among women treated due to the breast cancer. This is an interesting finding, as in popular opinion cancer has a negative and often devastating influence on everyday life. The findings of the presented study show a contradictory situation: the respondents evaluated the examined aspects of quality of life as good. It is thought that such good rates are the result of the respondents' activity in self-help clubs. During the studies, a positive mental attitude towards themselves and the world around them was observed among the respondents. Reactions of shame, depression or discouragement were not noticed. Women admitted that psychological help and support received from other patients often exceeded the assistance received from the people closest to them. The clubs become places for exchanging life experiences. According to the surveyed women, only integration in the Amazons' Clubs allowed them to find meaning and purpose in life, and to appreciate its value.

The emotional field was the dimension assessed as the lowest in the quality of life [11, 13]. Women at a younger age (45-50 years) better assessed their functioning in all studied areas compared with older respondents. In this way, the assumption was confirmed that women after 50 assess the quality of life as worse. Similarly, in the research of other authors, tendencies of stronger changes were observed in older women in the mental field of functioning than in younger patients [10, 14, 15]. In numerous publications, however, a high level of stress is stated in groups of younger patients. The diagnosis of cancer at a young age is connected with disturbing social roles so far performed, problems with menopause, or changes in own body appearance [16, 17, 18, 19]. On the other hand, young women have a greater access to public support, are more often surrounded by family and friends, and enjoy greater chances of successful healing than older women [20, 21].

In our own studies, we stated that educated examined women had correlated with the quality assessment of life in mental field: a better evaluation was attained by the respondents with higher education [22, 23]. It was shown that single women assessed better their quality of life, compared with the remaining respondents; this is similar in examinations conducted by J. Engel et al. [24]. This assumption has not been confirmation in other authors studies [25]. Analyzing the influence of the marital status on the quality of life of women treated because of the breast cancer, it was stated that the marital status had not affected the quality assessment of living in any of the spheres. Experiments conducted by other researchers do not fully confirm this relationship [26].

Both the overall quality of life and analyzed areas were rated higher by respondents residing in rural areas, and a statistical correlation was observed in the social sphere. Perhaps this is connected with the individual determinants of human nature that make a person able to eventually adapt to almost any difficult situation, in this case, to breast cancer, which takes time to learn to live with it, support, particularly from those closest to them, ability to cope with adversity, and the strong will to survive [27, 28]. Research conducted by Lu W. et al. has shown that the passage of time influences positively the overall quality of life and bio-psychosocial functioning [29]. The problem of the place of residence is very important due to the different approaches to life among women living in cities, compared to residents of villages. Without doubt, the place of residence is associated not only with habits or behaviour, but also with attitudes of women towards their appearance,

problems with the availability of opportunities for early diagnosis and treatment, and self-help clubs. Moreover, there were differences in relationships, particularly in the willingness to provide support and assistance in difficult times. The urban environment, compared to rural areas, is organized in a different way, characterized by a higher level of anonymity and indifference. Among women diagnosed with breast cancer, coming from small towns and being less educated, there is a frequent phenomenon of alienation, with deep psychosocial problems associated with lack of hope for a cure [16]. This was not confirmed in the presented study in which women living in rural areas could count on more support from family and friends, and exhibited a greater will to live than the respondents from cities.

CONCLUSIONS

1. Among the respondents engaged in the ongoing struggle with cancer or its consequences, perception of the overall quality of life and examined areas was surprisingly good.
2. Younger women with a higher education, single, and inhabiting rural areas, assessed their mental, social sphere, and overall quality of living as being better.
3. Along with age, there decreased in the respondents the experienced quality of life; however, a rise of evaluations of the mental sphere accompanied the rise in education level. In the social sphere, women living in rural areas were marked by higher results, compared to respondents from urban areas.
4. Help for breast cancer patients should focus on reducing the negative emotional states and potential mental disorders, not only in clinical therapy.

REFERENCES

1. Litwiniuk M, Łojko-Dankowska A. Rak piersi u kobiet w podeszłym wieku. Onkol Pol. 2000; 3(3): 157-161 (in Polish).
2. Pierzchała RP, Pasz-Walczak G, Jeziorski A. Nowe czynniki rokownicze w raku piersi. Współcz Onkol. 2004; 8(9): 429-343 (in Polish).
3. Didkowska J, Wojciechowska U, Tarkowski W, Zatoński W. Nowotwory złośliwe w Polsce w 2000 roku. Centrum Onkologii – Instytut im. M. Skłodowskiej-Curie. In: Krajowy Rejestr Nowotworów, Warszawa 2003: 75-76 (in Polish).
4. Kroenke CH, Kubzansky LD, Schernhammer ES, Holmes MD, Kawachi I. Social networks, social support and survival after breast cancer diagnosis. J Clin Oncol. 2006; 24(7): 1105-1111.
5. Falagas ME, Zarkadoulia EA, Ioannidou EN, Peppas G, Christodoulou Ch, Rafailidis PI. The effect of psychosocial factors on breast cancer outcome: a systematic review. Breast Cancer Res. 2007; 9(4): R44.
6. Lueboonthavatchai P. Prevalence and psychosocial factors of anxiety and depression in breast cancer patients. J Med Assoc Thai. 2007; 90(10): 2164-2174.
7. Oktay JS. Psychosocial aspects of breast cancer. Lippincotts Prim Care Pract. 1998; 2(2): 149-159.
8. Kwan ML, Ergas IJ, Somkin CP, Quesenberry CP Jr, Neugut AI, Hershman DL, et al. Quality of life among women recently diagnosed with invasive breast cancer: the Pathways Study. Breast Cancer Res Treat. 2010; 123(2): 507-524.
9. Letho US, Ojanen M, Kellokumpu-Lehtinen P. Predictors of quality of life in newly diagnosed melanoma and breast cancer patients. Ann Oncol. 2005; 16(5): 805-816.
10. Majkowicz M, Chojnacka-Szawłowska G. Metodologiczne problemy badania jakości życia. In: de Walden-Gałuszko K, Majkowicz M. Jakość życia w chorobie nowotworowej. Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 1994: 65-84 (in Polish).
11. Wrońska I. The quality of women's life after mastectomy in Poland. Health Care Women Int. 2003; 10(24): 900-909.
12. Mika KA. Po odjęciu piersi. PZWL, Warszawa 2005 (in Polish).
13. Chwałczyńska A, Woźniewski M, Rożek-Mróz K, Malicka I. Jakość życia kobiet po mastektomii. Wiad Lek. 2004; 57(5-6): 212-216 (in Polish).
14. Chachaj A, Małyszczak K, Lukas J, Pyszel K, Pudełko M, Tarkowski R, et al. Jakość życia kobiet z obrzękiem limfatycznym kończyny górnej po leczeniu raka piersi. Współcz Onkol. 2007; 11(9): 444-448 (in Polish).
15. Stępień RB. Uwarunkowania społeczno-demograficzne poziomu lęku i depresji u kobiet po radykalnym leczeniu chirurgicznym raka piersi – mastektomii. Probl Piel. 2007; 15(1): 20-25 (in Polish).
16. de Walden-Gałuszko K. Psychospołeczne aspekty raka sutka. In: Jassem J. (red.) Rak sutka. Springer PWN, Warszawa 1998 (in Polish).
17. Meyza J. Jakość życia w chorobie nowotworowej. Centrum Onkologii Instytutu im. Marii Skłodowskiej-Curie, Warszawa 1997 (in Polish).
18. Mor V, Malin M, Allen S. Age differences in the psychosocial problems encountered by breast cancer patients. J Nat Cancer Inst Monographs. 1994; 15: 191-196.
19. Ślubowska M, Ślubowski T. Problemy psychosocjalne w raku piersi. Psychoonkologia 2008; 1: 14-25 (in Polish).
20. de Walden-Gałuszko K, Majkowicz M. Model oceny jakości opieki paliatywnej realizowanej w warunkach ambulatoryjnych. Akademia Medyczna, Gdańsk 2000 (in Polish).
21. de Walden-Gałuszko K. Psychologiczne następstwa leczenia chorych na nowotwory. Onkol Pol. 1998; 1(3-4): 149-152 (in Polish).
22. Graja T, Grodecka-Gozdecka S. Czynniki wpływające na jakość życia kobiet leczonych z powodu raka piersi. Przegl Ginekol Poł. 2005; 5(3): 115-120 (in Polish).
23. Tchórzewska H, Niwińska A, Nagadowska M, Pieńkowski T. Wpływ zachowawczego leczenia raka piersi na fizyczny, psychiczny i seksualny obraz kobiety – ocena pacjentek. II Ogólnopolska Konferencja „Diagnostyka i Leczenie Raka Piersi"; Marzec 22-24 2001; Warszawa, Polska (in Polish).
24. Engel J, Kerr J, Schlesinger-Raab A, Eckel R, Sauerand H, Hölzel D. Predictors of quality of life of breast cancer patients. Acta Oncol. 2003; 42(7): 710-718.
25. Krzyżanowski D, Uchmanowicz I, Chybicka A, Mess E, Król A. Psychologiczny aspekt jakości życia pacjentów w terminalnej fazie choroby nowotworowej. Pol Med Rodz. 2004; 6(1): 187-194 (in Polish).
26. de Walden-Gałuszko K, Majkowicz M, Trojanowski L, Trzebiatowska I. Jakość życia u kobiet z nowotworem gruczołu piersiowego. In: de Walden-Gałuszko K, Majkowicz M (red.). Jakość życia w chorobie nowotworowej. Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 1994 (in Polish).
27. Nowicki A, Nikiel M. Operacje odtwórcze piersi, ocena satysfakcji pacjentek. Współcz Onkol. 2006; 10(2): 45-50 (in Polish).
28. Ogińska-Bulik N. Rola prężności psychicznej w przystosowaniu się kobiet do choroby nowotworowej. Psychoonkologia 2011; 1: 1-10 (in Polish).
29. Lu W, Cui Y, Chen X, Zheng Y, Gu K, Cai H, Zheng W, Shu XO. Changes in quality of life among breast cancer patients three years post-diagnosis. Breast Cancer Res Treat. 2009; 114(2): 357-369.