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# Perception of the Influence of Lymphedema on the Everyday Activities and Mental Health of Women with Breast Cancer

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## Abstract

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**Introduction.** Breast cancer is still the most common malignant disease in women, although its mortality is lower thanks to aggressive treatment and prevention. Secondary lymphedema of the upper limbs is the most common consequence of breast cancer treatment, but due to external factors, it can also occur years later. Lymphedema is a chronic, inflammatory, lymphostatic disease that, along with pain and discomfort, leads to limitation of arm mobility. Considering that the lymphedema of the arm is visible, and still cannot be corrected aesthetically in Croatia, women have difficulties in finding adequate clothes, and it also affects their everyday activities.

**Aim.** To examine the perception of the impact of arm lymphedema caused by breast cancer therapy on everyday activities, and mental health of women.

**Methods.** We used the LYMQOL questionnaire to assess the quality of life of women with upper limb lymphedema and the DASS-21 questionnaire to assess their mental health. A total of 100 women with lymphedema with an average age of 52.3 participated in the research, all members of breast cancer associations.

**Results.** Results on all subscales of the DASS-21 questionnaire are increased. A large percentage of respondents have severe symptoms of anxiety and depression, which should not be ignored.

**Conclusion.** Women estimate that lymphedema affects their everyday and leisure activities, whereby they most often mention sports, cycling, driving, hiking, being out in the sun, socializing, but they also indicate the very unpredictability of how the arm will react in certain conditions.

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## Introduction

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Breast cancer remains the most common malignant disease among women, accounting for 24% of all malignant diseases (1-3). In the Republic of Croatia, 2,500 women are diagnosed with breast cancer annually (4). The mortality rate is declining due to prevention, which raises awareness among women about self-examinations and regular check-ups, as well as aggressive and radical breast cancer treatments that often lead to arm lymphedema. In Western Europe, lymphedema primarily occurs because of breast cancer treatment. The first treatment choice for cancer is surgery, which largely depends on the size of the tumour and the breast itself. The most radical form of surgery is a mastectomy, where the breast and nipple are removed, although reconstruction can be performed during the first operation or later. Segmentectomy or quadrantectomy is a breast-conserving surgery where only the tumour area is removed (5). However, since the breasts are rich in lymphatic vessels that extend to the axillary lymph nodes, cancerous cells may spread to that region. Therefore, axillary lymph node dissection is often performed, which can lead to arm lymphedema (4,6).

Lymph nodes play a crucial role in the biological filtration of the body, destroying harmful substances, regulating proteins in the lymph, and depositing harmful substances that cannot be eliminated (7). The lymphatic system also collects cerebrospinal fluid and has an immune function by destroying harmful substances through phagocytosis. Thus, the removal of lymph nodes from the axillary region can result in complications such as loss of sensation in the operated area, discomfort in the back of the arm, swelling in the axillary region immediately after surgery, and lymphedema. Lymphedema is defined as a chronic inflammatory lymphostatic disease caused by mechanical insufficiency. The increasing volume of lymph accumulating in the tissue, which the lymphatic system cannot remove, creates a burden that results in edema. Damage to lymphatic vessels disrupts antigen transport, which can lead to infection.

The incidence of upper limb lymphedema is 17% and increases in the two years following the breast cancer diagnosis or surgery. However, it is highly variable, and the timing of lymphedema onset is un-

predictable. Lymphedema may develop immediately, a few days, months, or even years after surgery as a result of an external factor. Swelling in the axillary region may subside within days after surgery or become permanent (8). The incidence is four times higher in patients who had axillary lymph node dissection compared to those who had sentinel lymph node biopsy (9-11). In addition to surgery, which is the most common cause of lymphedema, radiation therapy can damage part of the lymph nodes in the affected region, as can individual factors such as excessive activity, inactivity, infection, injury, or weight gain (1).

The onset of lymphedema is characterized by a tight wristwatch or tight sleeve. Patients may complain of a feeling of heaviness and fullness in the affected region, stiffness in the upper limbs, and mild swelling that subsides. Dry skin can also be a significant issue, as it may lead to infections, requiring proper skin care. Patients also complain of pain and difficulty performing everyday activities, as well as challenges in finding appropriate clothing. Lymphedema also visually deviates from the standard concept of beauty, which can negatively affect the psychological state of a person and may influence their social life (10).

Lymphedema can have various stages, ranging from the initial latent phase, where edema is not yet visible, to the final stage, where atrophic changes to the skin occur, and the edema becomes irreversible (12).

Physical illnesses are often accompanied by unpleasant emotional states such as stress, anxiety, and depression, particularly when dealing with life-threatening diseases. Besides the threat to life, breast cancer treatment can provoke intense negative emotions in women, especially when it involves partial or complete removal of the breast, as breasts are associated with motherhood and feminine beauty. If treatment includes chemotherapy, hair loss (alopecia) can occur, which many women also find difficult to cope with, in addition to the possible onset of lymphedema. Therefore, the diagnosis and treatment process bring a multitude of negative emotions that women must confront. The occurrence of lymphedema has a detrimental effect on performing everyday activities, which can further negatively impact both physical and mental health, leading to stress, anxiety, and even depression. Daily activities are crucial for every individual's mental well-being. Patients who have undergone breast cancer surgery and have had axillary lymph node dissection are forced to adjust their daily

activities, and in some cases, avoid certain activities to prevent worsening of their arm condition. It is important to educate patients to detect lymphedema as early as possible and to start rehabilitation to prevent lymphedema escalation (1), as well as to teach them how to live with lymphedema and adapt their everyday activities to this condition.

Avoiding injury in the lymphedema-affected area includes avoiding injections, depilation, and any activities that might worsen the condition. Heat, not only during the summer months, as well as steam from cooking and baking, can be harmful. For example, ironing can be risky due to the potential burns and strains on the arm. Patients with lymphedema should avoid wearing tight clothing and anything that might cut into the skin, as this restricts lymph flow. Patients should be informed about precautionary measures, including avoiding blood pressure measurement on the arm with lymphedema. Overexertion, such as household chores like window washing or gardening, should also be avoided. Patients need to be made aware of the benefits of regular exercise, maintaining a healthy body weight, and proper skin care (12). Shaving and depilation can damage the skin, so the use of depilatory creams is recommended. During cooking or baking, it is advisable to place a wet cloth on the arm, and if tingling occurs during activities, rest is required. Additionally, patients should be educated about self-bandaging, which significantly eases the performance of daily activities (12).

## Aim

To determine the perception of the impact of arm lymphedema on the performance of everyday activities and the mental health of women who developed lymphedema due to breast cancer treatment. Additionally, the aim is to examine the correlation between these variables and different sociodemographic characteristics, as well as certain aspects of the disease.

## Methods

### Participants

The sample in this research includes 100 participants who, after breast cancer treatment, were diagnosed with arm lymphedema. The average age of the participants is 52.3 years (SD=9.69), with the youngest participant being 31 years old and the oldest 74 years old. The sample consists of members of associations that gather women diagnosed with breast cancer which include: "Sve za nju" and "Nismo same" from Zagreb, "Caspera" from Split, and the "Nada" association from Rijeka. Table 1 shows the sociodemographic data of the participants. The mentioned frequencies also represent percentages.

Table 1. **Sociodemographic data of participants with arm lymphoedema (N=100)**

	Frequency	
Marital status	single	6
	in a relationship	5
	married	69
	divorced	15
	widowed	5
Education	primary education	2
	education	
	secondary education	51
	higher education	21
Place of living	high education	26
	village	18
	small town	144
Income	town	68
	below average	17
	average	72
	above average	11

## Instruments

Two validated measuring instruments were used in this study: the Lymphedema Quality of Life Questionnaire (LQOLQ) for the Upper Limb and the Depression, Anxiety, and Stress Scale (DASS-21), along with additional questions about sociodemographic data and some aspects of the disease and the onset of lymphedema.

The Lymphoedema Quality of Life Questionnaire for the Upper Limb by Keeley et al., from 2010, was translated by the authors for the purposes of this study. The questionnaire contains 21 statements grouped into 4 domains: questions 1 (a-h), 2, and 3 relate to function (e.g., "How much does your swelling arm affect your daily activities such as work, housework, or leisure and social activities?"), questions 4-8 pertain to appearance (e.g., "How much do you feel the swelling affects your appearance?"), questions 9-14 describe symptoms (e.g., "Have you had trouble sleeping?"), and questions 15-20 describe mood (e.g., "Have you felt worried?"). The overall quality of life is assessed by question 21. Participants rate on a 4-point scale how much lymphedema affects a particular daily activity, where 1 means "not at all" and 4 means "a lot" (13). The total result is expressed as the average value of all statements within each subscale, with a higher score indicating a worse condition. For overall quality of life, a lower score indicates lower quality, and it is rated on a scale from 0 (poor) to 10 (excellent).

The validation of this questionnaire was conducted by Wedina et al. (2019) on a Swedish sample. The research showed that the questionnaire is simple, clear, and not too long for use with patients with arm lymphedema, making it a useful tool in clinical practice. The validity of the questionnaire was found to be high, and the perceived lymphedema was significant in the domains of function and appearance. The reliability of the questionnaire ranged from 0.53 to 0.87 (14). Pas et al. (2015) demonstrated good internal consistency and reliability for the second part of this questionnaire, focused on the lower extremities, and a good correlation with the physical component of the SF-36 short form, indicating good validity (15). Borman et al. (2018) also found high reliability of the questionnaire on a Turkish population (16). This study also showed high reliability for all subscales: function (0.91), appearance (0.92), mood (0.91), symptoms (0.92).

The Depression, Anxiety, and Stress Scale (DASS-21), by Lovibond and Lovibond (1995), with a Croatian adaptation by Jokić-Begić, Jakšić, Ivezić, and Suranyi (2012), was used to measure mental health. The DASS-21 assesses the frequency and intensity of negative emotions over the past week and contains 21 statements, with 7 statements in each of the three subscales (stress, anxiety, and depression). Each subscale is rated on a 4-point scale, where 0 means "does not apply to me at all," and 3 means "applies to me very much or most of the time" (17-19). The maximum score on each subscale is 42, and the scales are divided into categories: normal, mild, moderate, severe, and extremely severe. Each subscale has its critical value; for depression, a score above 9 is critical, for anxiety above 7, and for stress above 14. Scores below the critical value are considered normal. According to Cronbach's alpha, the reliability for depression is 0.90, for anxiety 0.89, and for stress 0.91, with the overall scale reliability being 0.96 (20-21).

## Procedure

The survey was conducted online from March to June 2023. The representatives of the associations forwarded the questionnaire to their members, who, after breast cancer treatment, were diagnosed with arm lymphedema, along with a request to participate in the research. All participants voluntarily took part in the study. The survey was conducted anonymously, and filling out the questionnaire took 10 to 15 minutes. Approval was obtained from the Ethics Committee of the University of Applied Health Sciences Zagreb, as well as consent from all associations whose members participated in the research.

## Statistics

Descriptive and inferential statistical measures were used in data processing. The normality of distribution for nine quantitative variables (age and total scores on the subscales) was tested using the Kolmogorov-Smirnov test, which showed that the distributions of seven variables significantly deviated from normal. However, additional checks of skewness and kurtosis showed that skewness did not exceed recommended values (22), as the highest skewness score was -0.65, and the highest kurtosis was -1.361. Therefore, given the relatively large sample size, we decided to apply parametric statistical procedures.

## Results

The average time elapsed since the diagnosis of a breast cancer was 5.77 years, while the median was 4 years. The range of results was from 4 months to 25 years. Information related to arm lymphedema is shown in table 2. Frequencies also represent a percentage since the number of participants is 100.

		frequency
Dominant hand	right	95
	left	5
Arm with lymphedema	right	46
	left	45
	both	9
Therapy for lymphedema	yes	72
	no	28
Relapse	yes	6
	no	94

Lymphedema occurs on both left and right arm, and 9% of women have lymphedema on both arms. Most of the participants are involved in some form of therapeutic treatment for lymphedema. Relapse is not very frequent; it occurs in only 6% of the participants. The following is a presentation of the average results of the quality of life subscales obtained by the LYMQOL questionnaire, as well as of mental health obtained by the DASS-21 questionnaire.

From Table 3, we can conclude that the women's function or daily life activities, appearance and mood are impaired to a lesser extent, while the symptoms are somewhat more present in the majority of the sample. The overall assessment of the quality of life is slightly above the theoretical average, which indicates moderate satisfaction ( $M=5.49$ ;  $SD=2.12$ ).

Arithmetic values for all three subscales of the DASS-21 questionnaire are higher than their critical values. In order to check what proportion of female respondents achieves high results on that questionnaire, Table 4 shows the distribution by categories from normal to very serious for all subscales (in percentages).

Questionnaire	Subscale	Mean	SD	Minimum	Maximum
LYMQOL	Function	2.01	0.607	1	3.7
	Appearance	2.21	0.808	1	4
	Mood	2.39	0.704	1	4
	Symptoms	2.62	0.775	1	4
	Quality of life	5.49	2.12	0	10
DASS-21	Stress	22.56	10.847	0	42
	Depression	16.92	12.386	0	42
	Anxiety	16.52	11.373	0	42
	Total	56.00	32.345	0	122

**Table 4. Proportion of respondents by subscale categories of the DASS-21 questionnaire**

	Stress	Anxiety	Depression
normal	23	23	40
mild	4	12	5
moderate	20	9	10
severe	42	11	11
extremely severe	11	45	34

Almost half of the respondents have a severe to extremely severe state of depression (45%), while in terms of stress, the proportion of women in these categories is 53%, and in terms of anxiety, even 56%. In order to check the relationship of certain sociodemographic variables with aspects of quality of life and mental health, additional analyses were conducted. We used the analysis of variance to check whether there are statistically significant differences regarding to women's financial situation. There were 72 respondents in the group with below average incomes, 11 female respondents with average, while the group with above average incomes included 17 women.

Significant differences were obtained for all three subscales of the DASS-21, and for the quality of life of the LYMQOL. Post hoc Scheffe test showed that for anxiety, depression, stress, and quality of life there is a difference between women with below-average and above-average incomes; significances are 0.017 for stress, 0.025 for anxiety, 0.037 for depression and 0.043 for quality of life. Respondents with below-average incomes have a lower stress, anxiety,

and depression, with stress also showing a difference compared to women with average incomes. It is interesting that they are more satisfied with the quality of life than respondents with above-average incomes. Arithmetic means are shown in the Table 5. It should be kept in mind that these categories are not based on objective criteria given the fact that the participants assessed which category they belong to. Also, there is a considerable disproportion in the size of the comparison groups, so these findings should be taken with some caution. For place of living and marital status, no statistically significant differences were obtained in relation to the observed variables. Regarding the level of education, two low-educated participants were excluded from the comparison, and a significant difference was found only for the overall quality of life ( $F=4.093$ ;  $p=0.009$ ); women with a higher education ( $M=6.23$ ) are significantly more satisfied with the overall quality of life compared to those with secondary education ( $M=4.82$ ).

The subscale *mood* is significantly related to age ( $r=-0.329$ ;  $p=0.001$ ); older respondents rate their mood as better than younger respondents. Age is also statistically significantly related to depression ( $r=-0.220$ ;  $p=0.028$ ), anxiety ( $r=-0.287$ ;  $p=0.004$ ) and stress ( $r=-0.247$ ;  $p=0.013$ ), but the correlations are low: older women show lower levels of depression, anxiety, and stress. All subscales of the DASS-21 questionnaire correlate with the subscales of the quality of life questionnaire in such a way that a more pronounced unpleasant emotional state is associated with a worse status of various aspects of quality of life. The more pronounced the anxiety, the worse the function, symptoms and appearance of the women are. Overall quality of life is negatively related to stress ( $r=-0.489$ ;  $p=0.00$ ), anxiety ( $r=-0.461$ ;  $p=0.00$ ) and depression ( $r=-0.485$ ;  $p=0.00$ ). Appearance is related to stress ( $r=0.495$ ;  $p=0.00$ ),

**Table 5. Descriptive statistics and ANOVA results for subscales of depression, anxiety, stress, and quality of life regarding women's financial status**

	Below average income		Average income		Above average income		F	p
	Mean	SD	Mean	SD	Mean	SD		
Anxiety	14.61	10.581	19.27	10.555	22.82	13.040	4.203	0.018
Depression	14.83	11.461	20.73	13.864	23.29	13.171	4.024	0.021
Stress	20.25	10.583	28.73	5.884	28.35	11.118	6.481	0.002
Quality of life	5.78	2.118	5.36	2.111	4.35	1.835	3.271	0.042

anxiety ( $r=0.512$ ;  $p=0.00$ ) and depression ( $r=0.549$ ;  $p=0.00$ ); the more pronounced the women's perception that lymphedema affects their appearance, they experience unpleasant emotions to a greater extent. The correlation is also present in the function in relation to stress ( $r=0.542$ ;  $p=0.00$ ), anxiety ( $r=0.520$ ;  $p=0.00$ ) and depression ( $r=0.540$ ;  $p=0.00$ ).

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## Discussion

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In this research, we were interested in how women with arm lymphedema caused by breast cancer perceive the impact of lymphedema on their lives. The results of the quality of life questionnaire for women with arm lymphedema indicate low to moderate impairment in daily life activities: appearance, and mood. Symptoms are somewhat more prevalent, but still moderate. The impact of lymphedema on functioning is relatively small, although, by comparing the average values with the results of other authors, we can conclude that our participants score higher on all subscales (23-25). Even among patients with the 2nd and 3rd stages of arm lymphedema, the average values usually range from 1.0 to 2.0, while among our participants, the average values on all subscales are above 2, with ranges going up to a maximum of 4. Authors do not find statistically significant differences in certain aspects of quality of life regarding the stage of lymphedema, except in the appearance subscale, where participants with higher stages report more difficulties in body image, and higher average values are obtained for these groups (2.6 and 2.2) (23, 24). The overall quality of life is average, indicating moderate satisfaction among participants, which is generally in line with the results of other authors (23, 24), while moderate to high satisfaction with overall quality of life and relatively low scores on other subscales were obtained in the Swedish sample (14).

In this study, we did not track changes during therapy; instead, participants assessed how much arm lymphedema affects them in performing certain daily activities using a questionnaire specifically focused on evaluating the quality of life in individuals with arm lymphedema.

The Lymphoedema Quality of Life Questionnaire included open-ended questions, which participants were not required to answer, concerning leisure activities that are limited or harder to perform due to the presence of lymphedema. A variety of responses were received. Most often, the limitations relate to sports activities, particularly cycling, hiking, walking, and swimming. In addition, participants mention aesthetic concerns, specifically the reduced selection of clothing available for various occasions due to the difference in arm circumference, and difficulties in being accepted in social situations where people stare at the arm, which can be very uncomfortable and can negatively affect mental health. Participants also noted limitations in everyday activities such as brushing hair, bathing, carrying items, and driving a car, along with getting tired quickly. Furthermore, summer months or higher temperatures exacerbate the swelling, increase the feeling of heaviness in the arm, and cause pain. Exposure to the sun can also worsen lymphedema. Beyond the limitations tied to daily and leisure activities, lymphedema can hinder reintegration into society. In Croatia, lymphedema is still not something that can be surgically corrected or concealed like breast reconstruction or the use of bras with inserts. This condition is visible to everyone, which, along with the difficulty of finding suitable clothing, leads to stares from people and constant questioning. Society imposes norms and has certain expectations regarding female beauty, establishing standards for what a woman should look like. Departing from these standards may result in societal rejection and a feeling of exclusion, regardless of age. Because of this, women with lymphedema often struggle with a lack of self-confidence and feelings of inferiority, viewing themselves through the lens of their impairment.

Bojinović-Rodić and colleagues highlighted a decrease in arm mobility, or arm dysfunction, as a greater issue in terms of quality of life than the actual circumference of the lymphedema. Their research also showed that lymphedema has a greater impact on quality of life than on mental health (11), which somewhat differs from the results of our study. This is undoubtedly an interesting finding, although a significant impact on quality of life could become a major issue for the individual's mental health over time.

Surprised looks, difficulty finding desired clothing, and constant questioning about what happened can lead to uncomfortable emotions, feelings of discom-

fort, and societal rejection. These attitudes create additional challenges for the social reintegration of women who have survived breast cancer, as visible lymphedema further complicates acceptance and socialization. It is not surprising, therefore, that a high percentage of participants in this study experience psychological difficulties: 42% of participants face a serious degree of stress, 45% deal with very severe anxiety, and 34% struggle with very serious depression, which is certainly alarming and necessitates professional help. Although the correlations between symptoms, appearance, and function associated with lymphedema are statistically significantly linked to participants' emotional difficulties, we presume that lymphedema is not the sole cause of their condition, as the primary illness itself, along with other difficulties caused by various therapeutic procedures, probably disrupts women's emotional stability. The findings confirm our assumptions regarding the participants' emotional states. Even though the study lacks a control group or comparison with the general population, based on previous studies mentioned in the introduction, increased values are observed, leading to the conclusion that a portion of participants has compromised mental health. These findings emphasize the importance of professional psychological support in coping with lymphedema, as well as in facilitating acceptance and life adjustments that would ease the return to daily and social activities, both of which are crucial for mental health.

Our results are in line with the findings of Morgan and colleagues (2005), who compared various studies indicating poor psychological adjustment to lymphedema and difficulties in physical and social functioning. Higher anxiety and depression levels have also been observed in patients with lymphedema compared to those without it. However, it has also been demonstrated that a coordinated approach to care and treatment, as well as patient education, has a positive effect on improving quality of life and developing a positive self-image (26).

The age of the women proved to be significantly related to their emotional state. Older women experience less stress, anxiety, and depression and score better on the mood subscale. This finding can be explained by the fact that with age and experience, women learn different ways of coping with life's problems, including illness. In our study, age is also significantly related to the time elapsed since the breast cancer diagnosis and given that unpleasant

emotions are certainly not caused only by lymphedema but also by the primary diagnosis, therapy-related difficulties, and other challenges, this may be why age acts as a "protective" factor. A difference in quality of life was also observed in terms of financial status: women with below-average incomes report lower levels of stress, anxiety, and depression, and they assess their quality of life more positively compared to women with above-average incomes, which was an unexpected finding. This result could be explained by the fact that women themselves determined their income category, which may not fully reflect their actual economic status. Another reason could be that women of higher socio-economic status may have higher expectations regarding their own quality of life and thus experience the decline in quality more dramatically than women of lower socio-economic status. However, this finding should be further verified in future studies.

We are aware of certain limitations of our study. For example, we were unable to consider some objective indicators of the state of lymphedema, such as the duration of the condition or the stage of lymphedema. Additionally, the self-assessment of participants' income may not accurately reflect their actual economic status. Caution should also be exercised regarding the critical values and categories set by the authors of the DASS-21 questionnaire, as they themselves note that the DASS-21 does not have direct implications for placing respondents into discrete classification categories, such as those found in diagnostic and statistical manuals for mental disorders (DSM, ICD), and the categories of serious and very serious do not necessarily indicate the clinical status of women.



## Conclusion

The research was conducted on 100 participants, members of associations that gather women who have been diagnosed with lymphedema. The women rated their quality of life as moderate, and among the various aspects of life affected by lymphedema, symptoms were the most prominent, although the women reported only a moderate impact on their lives. The study shows that lymphedema is related to the mental health of women, particularly anxiety, where the highest percentage of women falls into the category of very severe anxiety, which is concerning and requires professional help. Everyday activities and leisure activities, such as cycling, are limited as they worsen the condition of lymphedema. These limitations contribute to the mental health outcomes of women with arm lymphedema.

This condition is complex and leaves a mark not only on the physical but also on the mental health of the individual, as demonstrated in the study. The involvement of various specialists in treatment is necessary to help and contribute to reducing the consequences of lymphedema.

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## PERCEPCIJA UTJECAJA LIMFEDEMA NA AKTIVNOSTI SVAKODNEVNOG ŽIVOTA I MENTALNO ZDRAVLJE ŽENA OBOLJELIH OD RAKA DOJKE

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### Sažetak

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**Uvod.** Rak dojke još je uvijek najčešća zloćudna bolest kod žena, premda je smrtnost od njega manja zahvaljujući agresivnom načinu liječenja, ali i prevenciji. Sekundarni limfedem ruke najčešća je posljedica liječenja raka dojke, ali može nastati i godinama kasnije kao rezultat vanjskih faktora. Limfedem je kronična upalna limfostatička bolest koja uz bol i nelagodne senzacije dovodi do ograničenja pokretljivosti ruke. S obzirom na to da je limfedem ruke vidljiv i u Hrvatskoj se još uvijek ne može estetski korigirati poput dojke, ženama je problem pronaći adekvatnu odjeću, a utječe i na svakodnevne aktivnosti.

**Cilj.** Ispitati percepciju utjecaja limfedema ruke na aktivnosti svakodnevnog života te mentalno zdravlje žena koje su suočene s dijagnozom limfedema, nastalog uslijed terapije raka dojke.

**Metode.** Primijenjen je upitnik o kvaliteti života s limfedemom ruke LYMQOL i upitnik DASS-21 za procjenu mentalnog zdravlja. U istraživanju je sudjelovalo 100 žena s limfedemom ruke prosječne dobi od 52,3 godine, inače članica udruga koje okupljaju žene oboljele od raka dojke.

**Rezultati.** Rezultati su povišeni na svim podljestvicama upitnika DASS-21, što ukazuje na narušeno emocionalno stanje žena. Veliki postotak ispitanica pati od ozbiljnih simptoma anksioznosti i depresije, što se ne bi trebalo zanemariti.

**Zaključak.** Žene procjenjuju da limfedem ima utjecaj na provođenje svakodnevnih aktivnosti i aktivnosti

slobodnog vremena, a kao otežane najčešće navode sportove, vožnju bicikla, automobila, planinarenje, izlazak na sunce, općenito druženja, ali i samu nepredvidivost kako će ruka reagirati u određenim uvjetima.

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**Ključne riječi:** limfedem, rak dojke, svakodnevne aktivnosti, mentalno zdravlje

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