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Original scientific paper

Influence of Liaison Psychiatric Approach on Quality of Life in Patients with Newly Diagnosed Breast Cancer

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A B S T R A C T

Having breast cancer represents traumatic stress event that can influence development of psychiatric disorders during psychological adjustment. The aim of research was to investigate influence of liaison psychiatric approach on quality of life in patients with breast cancer. Sample consisted of 120 women with breast cancer treated on Department for Oncology in University Hospital Osijek. Patients were in liaison psychiatric treatment for two months. They were estimated on the first day, after one and two months of treatment. We used psychiatric interview and DSM-IV criteria, specially structured non-standardized questionnaire for estimation of potential ethyological factors for psychiatric disorders and WHOQOL-BREF for estimation of quality of life. We found that liaison psychiatric approach improved quality of life in patients with newly diagnosed breast cancer.

***Key words**: breast cancer, quality of life, liaison psychiatry*

Introduction

Breast cancer is the most frequently diagnosed cancer among women and the trend is in increase[1].

Quick progress in detecting and treating disease enables longer survival rate. Today most women with detected breast cancer can expect to be cured and live a long life with their diagnosis. However, the treatment of this chronicle disease, compared with some other diseases like cardiovascular diseases or diabetes, is much more toxic and with added intense.

Greater possibility of surgery treatment has extended a role of women with breast cancer in deciding of treatment methods. Implementation of aggressive procedures in therapy, as well as an evaluating use of chemo preventive substances, modifies a relation patient-doctor.

As a result, patient's corporal reserves, psychological and social capacity are much more important today to win a disease. There are increased requests for a communication in a family and a need to obey ethical principles, informed consent, taking care of life quality of cancer patients and, lately, cost-benefit principle in treatment[2].

In order to give support to women who show mental instability during adaptation to a physical disease, different psychiatric treatments with the purpose of decreasing anxiety and depression can be used. Most of them have shown good efficiency in this population[3–9]. That was a basis of psychooncology, as a part of liaison clinical psychiatry. On our Oncology Department at liaison psychiatric principles we have an approach in which a psychiatrist makes a member of the oncology team. In treatment of women with breast cancer with psychiatric problems, a psychiatrist conducts a short-term dynamic psychotherapy, cognitive-behavioral techniques and psychopharmacotherapy with the goal to reduce their problems.

The aim of this research was to estimate different types (psychotherapeutic, psychopharmacological and combined) of liaison psychiatric approach and its influence on improvement of life quality of women with breast cancer.

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Examinees and Research Methods

Research methods have included:

– forming a test group
– application of therapeutic techniques
– research implementation
– statistical analysis.

Forming a test group

A test group was formed of 120 subjects who were divided in four groups. Every group included 30 subjects. Sorting patients in groups was carried out by a psychiatrist-researcher, by a random choice according to the table of random numbers.

Patients were in a psychiatric treatment for two months.

The first group of patients in psychiatric treatment was treated with psychopharmacotherapy.

The second group of patients was treated with psychotherapy (short-term dynamic psychotherapy or cognitive-behavioral psychotherapy).

The third group of patients was treated with a combined use of psychopharmacotherapy and psychotherapy (short-term dynamic psychotherapy or cognitive-behavioral psychotherapy).

The fourth group of patients was a control group and they were not in any kind of psychiatric treatment.

Criteria for inclusion in research were:

- female gender, age from 18 to 65, newly diagnosed breast cancer (in time after surgery and chemotherapy procedures, during radiation therapy because of cancer), valuations HAM-D $\geq 8 \leq 24$ or valuations HAM-A $\geq 17 \leq 30$, nonexistence of serious organ diseases, without sings of mental illness and without mental illness in the past, completed primary school as minimum level of education, appropriate capacity for conversation, signed informed consent.

Criteria for excluding from research were:

- inacceptance of participation in research according to an informed consent of patients, existence of other serious organs diseases, pregnancy, breast feeding, data of previous or present existence of psychotic disorders, mental retardation, heavier disruption of personality, permanent disruption of personality, abuse of psychoactive substances or alcohol in the last three months before the research start, taking part in any kind of psychotherapy treatment in the past.

Applied question-form

We used a psychiatric interview with DSM-IV criteria[10] for diagnosing mental instability, a specially structured unstandardized question-form for evaluating potential etiological factors for development of mental disruptions, Hamilton depression scale HAM-D[11] to evaluate depression, Hamilton anxiety scale HAM-A[12] for evaluating anxiety, and World Health Organization Quality of Life Assessment (WHOQOL-BREEF)[13–15], to evaluate quality of life.

Evaluation was conducted on the first day, one month and two months after implementation of therapy.

Statistics

Basic statistics was done and it includes middle values calculation (arithmetic mean, quartiles, mode) and measure of dispersion (variance, standard deviation).

Taking into consideration three repeated measurements and four groups of patients, ANOVA for repeating of measurements was made. With dependent samples, for testing a difference in distributions between two continuous accidental variables a t-test for dependent samples was used.

Statistical analysis was made by using program packages StatSoft, Statistica 7.1 and SPSS 11.0.

Results

Demographic features of the test group

The research included middle aged women. The average age of subject was 56.52 years (minimum 24, maximum 65) with standard deviation 8.628. Most of them had a quarted surgery on their breast (quadrantectomy) 51.67 % apart from mastectomy (48.33 %), but per kind of implemented operation the sample was equable.

Most of the questioned women had completed primary school or secondary school (90%), had steady employment (36.17%) or they were retired (28.34 %), but there were also students as part of the sample (2.5 %). More od them were from village (59.17 %). Most of them were married (61.67 %) or widdows (27.5%) and had two (44.17 %) or three or more than three children (28.33 %).

Because of the potential influence on physical disorders evolution, during adaptation to systemic disease, a displaced person or refugees status of involved women was analyzed. Results showed no displaced person or refugees status in most women (72.5%) and 27.5% women had this experience. Out of the group that went through that traumatic experience 36.4% have spent less than one year in proscription, and 24.2% more than seven years. Because of the small number of women who were in that category the fact is not statistically significant and, therefore, it had no greater influence on development of the strongest pathology.

Intensity of their psychical disorders most of the questioned women described as medium (48%), 26.7% of them described minimal intensity of psychical disorders, 16.7% strong, and psychical disorders that incapacitated them in their life or their activity was spotted in 9.2% of the questioned women. Literature data also show us that about 10% of women with breast cancer demand intensive psychiatric treatment because of strong mental instability[2].

TABLE 1
STATISTICAL SIGNIFICATION REVIEW OF DISTINCTION BETWEEN GROUPS AND MEASUREMENTS FOR THE 1. QUESTION WHO-QOL-BREF

Varistion of statistically signifitation between groups	Group					
(p <)	1–2	1–3	1–4	2–3	2–4	3–4
First and second measurement	*	0.012	*	0.0222	*	0.012
First and third measurement	*	0.022	*	0.014	*	0.0002

* p > 0.05

TABLE 2
STATISTICAL SIGNIFICATION REVIEW OF DISTINCTION BETWEEN GROUPS AND MEASUREMENT FOR THE 2. QUESTION WHO-QOL-BREF

Varistion of statistically signifitation between groups	Group					
(p <)	1–2	1–3	1–4	2–3	2–4	3–4
First and second measurement	*	*	0.0284	*	0.0117	0.0056
First and third measurement	*	*	0.0182	0.0401	*	0.004

* p > 0.05

Result analysis of evaluation of the quality of own life according to groups

Results variation between each group is statistically significant between the first and the second measurement ($p<0.0096$) and between the first and the third measurement ($p<0.0096$).

All given results are close to the middle value, what is considered as satisfying. Life quality experience has been rated as high in a group treated by psychotherapy, and a significant increase can be seen in a group treated by combined psychotherapy and psychopharmacotherapy. A group that was under no psychiatric treatment, as well as a group that was treated only with psychopharmacs, are less satisfied with their life quality (Table 1, Figure 1).

By using a T-test for dependent model between the first and the third measurement we get statistical signification for the third ($p<0.0087$) and the fourth group ($p<0.0055$).

Result analysis of evaluation of own health satisfaction level according to groups

Difference in results evaluation between all analyzed groups is statistically significant between the first and the second measurement ($p<0.0065$) and between the first and the third measurement ($p<0.0051$).

The best grade for their own health satisfaction was given by examinees treated with psychotherapy. A group that was treated with combined psychotherapy and psychopharmacs shows improvement of their own level of health satisfaction, and a control group records a fall, with statistical significance between groups (Table 2, Figure 2).

Those results are satisfying because they are close to the middle value.

By using a T-test for dependent model between the first and the third measurement we get statistical signification for the first ($p<0.0157$) and the third group ($p<0.0063$).

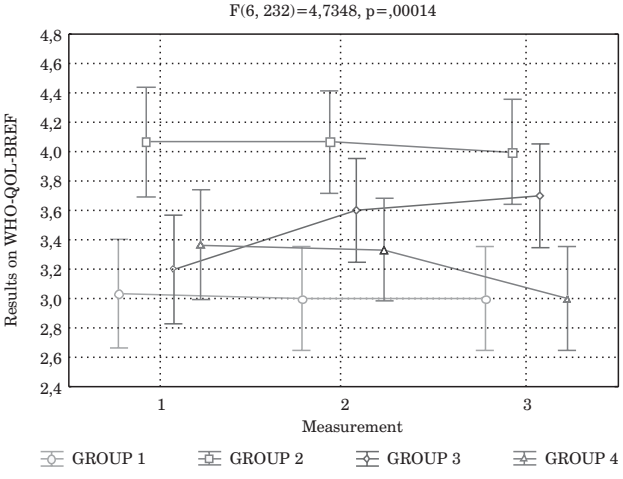

Fig. 1. Presentation of own life quality on WHO-QOL-BREF (1. question).

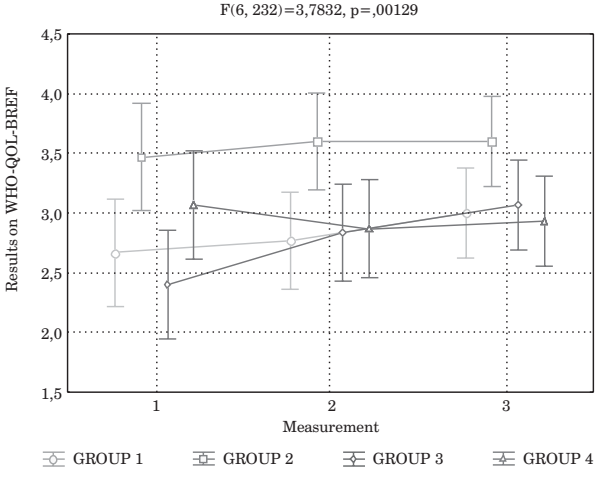

Fig. 2. Presentation of own health satisfaction level on WHO-QOL-BREF (2. question).

Result analysis for the area of WHO-QOL-BREF according to groups

Valuation of results between all analyzed groups has a statistical signification between the first and the second measurement ($p<0.0001$) and between the first and the third measurement ($p<0.0005$).

Data acquired for the physical health level show that a group that was treated with the combination of psychotherapy and psychopharmacs records an increase, and a control group records a satisfaction fall, with a significant difference between groups. The best results are shown in a group treated with psychotherapy, and the worst in a group treated with psychopharmacs, but all results are in high values (from 50. to even 77. percentiles).

By using a T-test for dependent model between the first and the second measurement we get statistical signification for the third group ($p<0.0045$).

Valuation of results between all analyzed groups has a statistical signification between the first and the second measurement ($p<0.0015$) and between the first and the third measurement ($p<0.0001$).

On a psychological level there is an increase in the aimed group, and a fall of values in the control group. The worst results were shown by examinees in a group that was treated with psychopharmacs, and the best ones in a group treated with psychotherapy.

By using a T-test for dependent model between the first and the third measurement we get statistical signification for the third ($p<0.0003$) and the fourth group ($p<0.0017$).

Valuation of results between all analyzed groups is not statistically significant between the first and the second measurement ($p<0.1341$), but it is significant between the first and the third measurement ($p<0.0190$).

On a level of social relations, all examined groups have achieved high scores (60–100. percentiles). The best results have been again shown in a group treated with psychotherapy, in a group treated with a combination of psychotherapy and psychopharmacs there was shown an insrease during the research, and in a control group treated with psychotherapy and psychopharmacs there was shown a fall of values with a statistical signification, but all results are in high values.

By using a T-test for dependent model between the first and the third measurement we get statistical signification for the first ($p<0.0004$) and the fourth group ($p<0.0364$).

Valuation of results between analyzed groups is not statistically significant between the first and the second measurement ($p<0.6500$) and the same situation is between the first and the third measurement ($p<0.2765$).

Valuations between all analyzed groups and valuations between analyzed groups against control group (for all conducted measurements) are not statistically significant.

TABLE 3
STATISTICAL SIGNIFICATION REVIEW OF DISTINCTION BETWEEN GROUPS AND MEASUREMENTS FOR PHYSICAL HEALTH AREA

Variation of stsatistically signification between groups	Group					
(p <)	1–2	1–3	1–4	2–3	2–4	3–4
First and second measurement	*	0.0303	0.0023	0.0432	0.0033	0.0003
First and third measurement	*	0.023	0.054	0.0431	0.0202	0.0007

* p > 0.05

TABLE 4
STATISTICAL SIGNIFICATION REVIEW OF DISTINCTION BETWEEN GROUPS AND MEASUREMENTS FOR PSYCHOLOGICAL AREA

Variation of statistically signification between groups	Group					
(p <)	1–2	1–3	1–4	2–3	2–4	3–4
First and second measurement	*	0.0196	*	*	*	0.0318
First and third measurement	*	0.0003	*	*	0.0006	0.0052

* p > 0.05

TABLE 5
STATISTICAL SIGNIFICATION REVIEW OF DISTINCTION BETWEEN GROUPS AND MEASUREMENT FOR SOCIAL RELATIONSHIP AREA

Variation of statistically signification betweeen groups	Group					
(p <)	1–2	1–3	1–4	2–3	2–4	3–4
First and second measurement	*	*	*	*	*	*
First and third measurement	*	0.057	*	0.0523	*	*

* p > 0.05

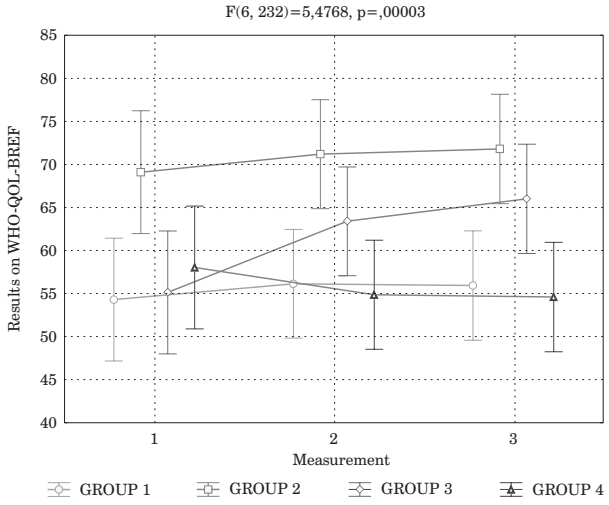

Fig. 3. Presentation results of physical domain on WHO-QOL-BREF.

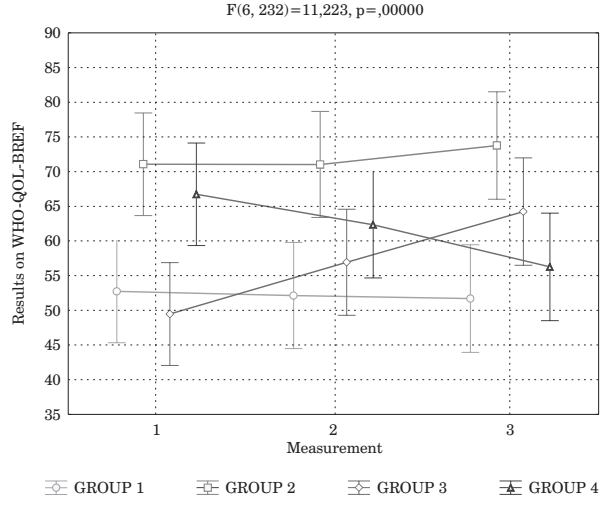

Fig. 4. Presentation results on psychological domain on WHO-QOL-BREF.

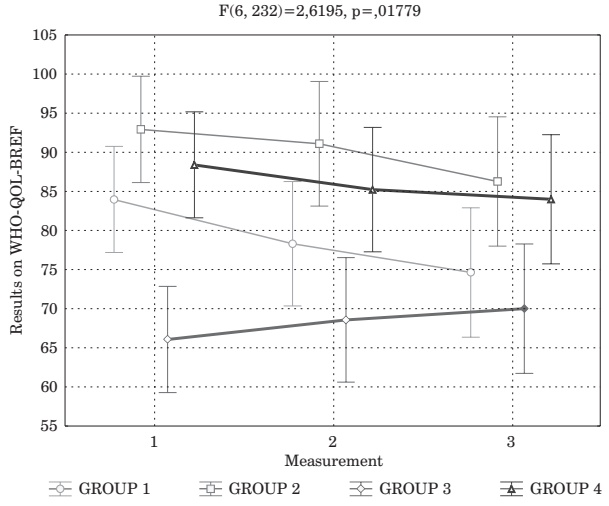

Fig. 5. Presentation results for social domain on WHO-QOL-BREF.

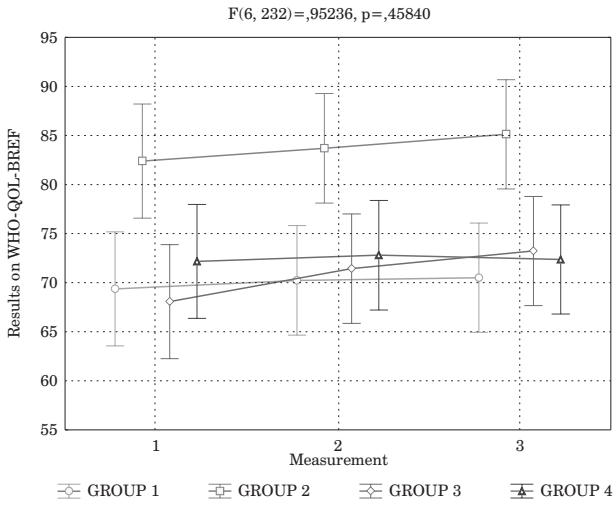

Fig. 6. Presentation results for environmental domain on WHO-QOL-BREF.

By using a T-test for dependent model between the first and the third measurement we get a statistical signification for the second group ($p<0.0360$).

Results achieved on the environment level for all analyzed groups are on a high level of achieved results (60–90. percentiles). The highest results were achieved during the whole research in a group treated with psychotherapy, and the worst ones were shown in a group treated with psychopharmacs.

Discussion

Although women nowadays have more possibility for treatment, psychological problems bound to adaptation to cancer, remained the same[16,17]. A period of life, in which cancer occurs, previous emotional stability, personal »coping« skills and existence of interpersonal support is of a special significance[18–21].

Most researchers generally agree that the most important period to accept cancer is one year after detecting a disease. It presents a crisis in patient's life but most of them satisfactory get over it, especially if they are in the group with good predictions[22]. As it is often noticated, a psychosocial support can not be offered to all patients, so it is important to decide what persons have a bigger risk for adaptation problems, so that support could be directed to them[23].

Although breast cancer is a huge stress for every women, there is a great variability in psychological reaction of every woman.[24].

Women with cancer have to confront with insecurity of their own future, sometimes with serious side effects of treatment, isolation feeling, stigma and a feeling of guilt[16,19,25]. They are often given too many pieces of information about their own diagnosis (including statistical data about survival rate).

Psychological distress, negative attitudes, physical disease and anxiety connected with separation and death, are decreased during the first year after the diagnosis is made[26,27]. However, feelings related to »having cancer« are often strong for years after the treatment is completed[20].

Efficiency of therapy interventions is often evaluated by analyzing life quality of ill persons. Once we measured only life quantity (time of survival). Prolonging survival time for ill persons, we started to think what life is like for persons who achieved it, and whether that life prolongation is quality enough, and if it justifies costs of the conducted treatment.

Quality of patient's life refers to his expectations and level of content with the current level of functioning, compared to those that patient expects or regards as an ideal, that is to say, it referrs to expected physical, emotional and social benefit associated with medical condition or treatment [2]. Quality of life is complicated, subjective and a variable category and it has to involve patient's expectations, and it has to be subjected to changes in the course of time[2]. It includes evaluation of patient's functional status (that is temper, feelings, social prosperity), and it is directed to patient's experience and judgments.

Quality of their own life and a level of pleasure with their own health patients grade with middle values, what is satisfactory. Compared to the control group, that was not under any therapeutic process, all conduced psychiatric treatments have shown positive therapeutic progress and improvement of life quality.

Taking into consideration results analysis of evaluation of their own life quality, it is noted that patients who were treated with psychopharmacs evaluate their life quality as the worst, and it is the best for those treated with psychotherapy. Positive progress is the most significant in a group treated with combined psychiatrist therapy.

It is additionally supported with obtained information for physical health level and psychological level, where the group that was treated with the combination of psychotherapy and psychopharmacs notes an increase, and the control group decrease of satisfaction, with a significant difference among groups. The best results were shown by a group treated with psychotherapy, and the worst results were found in a group treated with psychopharmacs, but all results are in high value (from 50. even to 77. percentiles).

It is the result of psycho- therapeutic support efficiency, working on experiencing oneself and regaining the control of themselves and their own life.

When talking about social relations and environmental level all analyzed groups have shown high results (60–100. percentiles) what indicates to a suitable social support which is an important factor in situations of adapting to physical disease[19,23].

The best results were shown in a group treated with psychotherapy again. In a group treated with combination of psychopharmacs and psychotherapy during study there was noted an increase, and in the control group a decrease of values with statistical signification, but all results are in high values.

During the time of adaptation, patients inevitably go through the process during which they have to reduce earlier set life goals. Psychiatric-therapeutic procedures are conducted in order to modify the intensity of physical disease experience, and with intention to make change on a psychological level, and a psychotherapist has to help patients to be more critical and more realistic in admission to their own future, and then there are changes of their level pleasure with their own life and attitude changes[28]. It is understandable that all patients described all areas of their life quality as very high, so the position in which they found themselves after becoming ill with cancer makes them being satisfied even with small progress. They brought around important things in life and have taken more critical attitude, sometimes being uncritical in their evaluation of situation (for example with evaluation of satisfaction with their current health on high level).

The research has indicated that only psychopharmacological treatment with this patients is not enough. Psychotherapeutic support with the support of family and friends have an important influence on patient's life quality and suggest necessity of psychiatric involvement in treating patients who have psychic distractions when adjusting to physical disease.

REFERENCES

1. ABELOFF MD, ARMITAGE JO, NIECERHUBER JE, KASTAN MB, MCKENNA WG, Clinical Oncology. 3rd ed. (Elsevier Inc, Churchill Livingstone, 2004). — 2. HOLLAND JC, Psycho-Oncology (Oxford University Press, New York-Oxford, 1998). — 3. FORESTER B, KORNFELD DS, FLEISS JL, Am J Psychiatry, 142(1985) 22. — 4. MOOREY S, GREER S. Cognitive behaviour therapy for people with cancer (University Press, Oxford, 2002). — 5. FALLOWFIELD LJ, HALL A, MAGUIRE GP, BAUM M, Br Med J, 301(1990) 575. — 6. KIRSH I, Changing Expectations: A Key to Effective Psychotherapy, (CA: Brooks/Cole, Pacific Grove, 1990). — 7. VLASTELICA M, URLIC I, COLL ANTROPOL, 28 (2004) 183. — 8. CHATURVEDI S, MAGUIRE P, HOPWOOD P, Psychooncology, 3(1994) 57. — 9. MASSIE MJ, SHAKIN EJ. Menagement of depression and anxiety in cancer patients. In: BREITBART W, HOLLAND JC (Eds) Psychiatric Aspects of Symptom Menagement in Cancer Patients (American Psychiatric Press, Washington, DC, 1993). — 10. AMERICAN PSYCHIATRIC ASSOCIATION. Diagnostic and Statistical Manual of Mental Disorders, 4th ed. (American Psychiatric Association, Washington, DC, 1994). — 11. HAMILTON MC. Hamilton depression scale (HAMD) (1967). In: GUY W. ECDEU Assessment Manual for Psychopharmacology (U.S. National Institute of Health, Psychopharmacology Research Branch, Rev. Rockville, MD, 1976). — 12. HAMILTON MC. Hamilton anxiety scale (HAMA) (1969). In: GUY W, ECDEU assessment manual for psychopharmacology (U.S. National Institute of Health, Psychopharmacology Research Branch, Rev. Rockville, MD, 1976). — 13. THE WHOQOL GROUP, The development of the World Health Organization quality of life assessment instrument (the WHOQOL). In: ORLEY J, KUYKEN W (Eds) Quality of

Life Assessment: International Perspectives (Springer Verlag, Heidelberg, 1994). — 14. THE WHOQOL GROUP, International Journal of Mental Health, 23 (1994) 24. — 15. THE WHOQOL GROUP, Soc Sci Med, 41 (1995) 1403. — 16. MAGUIRE P, Soc Sci Med, 20 (1985) 819. — 17. MEYEROWITZ BE, Psychosoc Bull, 87 (1980) 108. — 18. CARVER CS, POZO C, HARRIS SD, NORIEGA V, SCHEIER MF, ROBINSON DS, KETCHAM AS, MOFFAT FL, CLARK KC, J Pers Soc Psychol, 65 (1993) 375. — 19. NORTHOUSE LL, Cancer Nurs, 12 (1989) 276. — 20. SHANFIELD SB, Compr Psychiatry, 35 (1980) 128. — 21. GARRUTO RM, LITTLE MA, WEITZ CA, COLL ANTROPOL 28 (2004) 509. — 22. GREER S, MORRIS T, PETTINGALE KW, Lancet, 13 (1979) 785. — 23. HOLAHAN CJ, MOOS RH, J Pers Soc Psychol, 49 (1985) 739. — 24. CARVER CS, SCHEIER MF. Principles of self-regulation: action and emotion. In: HIGGINS ET, SORRENTINO RM (Eds) Handbook of Motivation and Cognition: Foundations of Social Behavior, vol: 2. (Gilford, New York, 1990). — 25. DUNKEL-SCHETTER C, FEINSTEIN LG, TAYLOR SE, FALKE RL, Health Psychol, 11 (1992) 79. — 26. BLOOM JR, COOK M, FOTOPOULOS S, Cancer, 59 (1987) 189. — 27. MORRIS T, GREER S, WHITE P, Cancer, 40 (1977) 2381. — 28. DE HAES JCJM, WELVAART K, J Surg Oncol, 28 (1985) 123.

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UTJECAJ LIAISON PSIHIJATRIJSKOG PRISTUPA NA KVALITETU ŽIVOTA BOLESNICA S NOVOOTKRIVENIM KARCINOMOM DOJKE

S A Ž E T A K

Obolijevanje od karcinoma predstavlja traumatski događaj koji može utjecati na razvoj psihičkih poremećaja tijekom psihološke prilagodbe. Cilj istraživanja bio je ispitati utjecaj liaison psihijatrijskog pristupa na kvalitetu života žena s karcinomom dojke. Uzorak je činilo 120 žena s karcinomom dojke liječenih na Odjelu za onkologiju Kliničke bolnice Osijek. Bolesnice su bile u liaison psihijatrijskom tretmanu u trajanju dva mjeseca. Procjena je učinjena prvog dana, nakon jednog i dva mjeseca liječenja. U istraživanju je korišten psihijatrijski intervju, DSM-IV kriteriji, specijalno strukturirani nestandardizirani upitnik za procjenu potencijalnih etioloških čimbenika za psihijatrijske poremećaje i WHOQOL-BREF za procjenu kvalitete života. Liaison psihijatrijskim pristupom poboljšana je kvaliteta života bolesnica s novootkrivenim karcinomom dojke.