

# THE RELATIONSHIP OF COPING MECHANISMS AND SOCIAL SUPPORT AMONG HUNGARIAN WOMEN SUFFERING FROM MALIGNANT BREAST CANCER

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## Summary

**Objectives.** To assess the types of coping mechanisms among women suffering from malignant breast cancer, the inheritance of social support in relation to socio-demographic factors, and the time passed since the diagnosis.

**Materials and methods.** In the present cross-sample study 112 women diagnosed with malignant breast cancer (C50) were selected at the Oncotherapy Department of the University of Pécs Medical School. Data were collected with the help of questionnaires, validated into Hungarian, translated authentically (FKV-LIS, F-SozU), and socio-demographic data. Different sets of questions were defined concerning the coping mechanism and the level of social support. Analysis was carried out with the SPSS 17.0 statistics software. We applied the t-test with independent samples and correlation calculation.

**Results.** There is a correlation between trivializing and depressive coping ( $r = 0.321$ ), between distractive and active coping ( $r = 0.456$ ), and between religious, searching for meaning and distractive coping. Age, marital status and the level of education influence the type of applied coping mechanism ( $p < 0.05$ ). Examining the level of social support, we can state that women who have a partner, have children, live in a village, or have known their diagnosis for more than a year, are better supported. Those women who do not have a partner, live alone, live in a town, or have known their diagnosis for less than a year, are remarkable.

**Conclusions.** The patient must feel emotional and physical support given by family members and friends. The coping mechanisms of the patient must be measured longitudinally because negative compliance and social isolation can lead to a worse prognosis.

Key words: oncology, malignant breast cancer, coping, social support

## INTRODUCTION

Cancer ranks second in mortality statistics among the primary causes of death both in developed countries and in Hungary (1). The mortality rate of cancer patients in Hungary is among the worst on an international scale considering both sexes (2). Concerning only gynaecological cancer types, the death rate for breast cancer has increased while for that of malignant cervical cancer

it has gradually decreased, although it is still three times higher than the European Union average (3).

Partnership support is represented as a protective factor in numerous studies. According to Ell (1984) partnership support is a valuable predictive factor in coping with breast cancer. Furthermore, the study warns that husbands of those women who suffer from breast cancer have difficulties to acknowledge the illness, and find it more difficult to approach their partners with

positive emotions (4). A study conducted in Norway on 117 women with previous breast biopsy demonstrated that demographic features and the social environment do not influence the risk of developing breast cancer. However, among women with stable social and partnership support, there is a higher chance of recovery than for those living in uncertain social settings. The level of education, employment status, marital status and household roles are among the factors most often examined. Based on our results, the unemployed, poorly educated and single women or widowers represent the group less likely to recover (5). A Canadian study verified that most relationships remained stable even after being informed of the breast cancer diagnosis. Abandoning a sick partner is more typical in relationships which have already been overburdened beforehand. The authors assert the role of the mass media and organizations involved in dealing with cancer patients with shaping the public opinion by featuring married couples with personal experiences (6).

#### AIM OF THE STUDY

Our study was conducted in order to examine the types of coping mechanisms adopted by women with malignant breast cancer in relation to social support and socio-demographic factors (sex, age, marital status, home).

#### MATERIALS AND METHODS

Our cross-sample study was carried out on a sample of 112 female patients over the age of 18 and treated for malignant breast cancer (C50) at the Oncotherapy Department of the University of Pécs Medical Faculty in the period between June 2007 and January 2008. Criteria for exclusion were defined as any mental state likely to make cooperation impossible; the concurrent presence of another, more severe illness apart from the malignant disease; and when the patient reported having encountered a disastrous event which was more oppressive to them than the present diagnosis itself.

We conducted our survey with two standardized questionnaires. The Hungarian-language validation of these had already been done earlier. Examination of coping was carried out by the Freiburg disease coping questionnaire, containing 35 items. The questionnaire examines the coping mechanisms (depressive, active, distractive, trivializing and religious, searching for meaning) on the 5-point Likert scale (from 1 = "not relevant at all" to 5 = "very relevant") (7). Tiringer gives the following scales and composite reliability indices according to the confirming factor analysis of 682 cardiological and 564 oncological patients' data: depressive-resigned coping (0.72), active – problem-centred coping (0.73), distraction – self-encouragement (0.70), and religious – searching for meaning coping (0.61). In our own sample the values of Cronbach's  $\alpha$  were as follows: depressive-resigned 0.56, active – problem-centred 0.50, distraction – self-encouragement 0.69, religion – searching for meaning 0.63.

A 5-point scale (from 1 = "not relevant at all" to 5 = "very relevant") belongs to the 14 items of the partnership support questionnaire (F-SoU). It measures the instrumental and emotional components of partnership support (9). Tiringer made a survey for application in patients who have undergone a bypass operation; in it the Cronbach  $\alpha$  value of the scale was 0.91. The patients filled in the questionnaires in Hungarian. (8). In our present examination the  $\alpha$  value of the FsozU scale was 0.93. We added further questions to the standard questionnaires concerning socio-demographic issues (place of home, number of children, marital status, occupation) and the time passed since the diagnosis was disclosed. Filling of the questionnaires was voluntary and anonymous.

Statistical analysis was carried out with the SPSS 17.0 statistics software. By descriptive methods, we calculated the mean value and dispersion. By analytical methods, we applied the two-sample t-test and Spearman correlation calculation, and one-way analysis of variance ( $p < 0.05$ ).

#### RESULTS

The average age of the examined women was 56.89 (SD  $\pm$  11.99). Our youngest patient was 32 years old, and the oldest one was 78. Regarding their education 30% (n=34) finished primary school, 14% (n = 16) finished vocational school, 43% (n = 48) finished secondary technical school, and 13% (n = 14) had a degree. Regarding their marital status 4% (n = 5) are single, 59% (n = 66) are married or live with a partner, 17% (n = 19) are divorced, and 20% (n = 22) are widows. Regarding their homes 55% (n = 61) live in a city, 21% (n = 24) live in a town, and 24% (n = 27) live in a village. Considering the type of treatment, 67% of the patients (n = 75) received chemotherapy, 19% (n = 21) radiotherapy, 12% (n = 14) hormone therapy, while another 2% (n = 2) received other treatments. 37.5% had been diagnosed within a year, while 62.5% (n=70) had been diagnosed for more than a year.

With the help of the Freiburg disease coping questionnaire we examined the coping mechanisms activated as a consequence of the malignant disease. Among the examined population we took the measure of 5 types of coping: depressive, active, distractive, religious and searching for meaning, and trivializing. In our sample the two most frequent coping methods are the active and the distractive coping, while the least characteristic is applying depressive coping. According to Spearman's rho correlation examination there is a connection between trivializing and depressive coping ( $r = 0.321$ ,  $p < 0.05$ ). A possible explanation of this is that the plastic relation, according to which people who earlier had a depressive period are not able to carry out effective coping mechanisms, they avert and soften their actual problems. There is a correlation between distractive and active coping ( $r = 0.456$ ,  $p < 0.05$ ). This is the patients' conscious ambition, according to which they try to pay attention not only to their actual problem, but other

events, not connected with their disease; this is qualified as adaptive coping. Religion and the search for meaning is also correlated with distractive coping ( $r = 0.322$ ,  $p < 0.05$ ), which can be considered as a cognitive type of coping.

Using the ANOVA, it was confirmed that age, marital status and level of education influence the type of coping mechanism ( $p < 0.05$ ). Regarding age, the role of religion is more important in the process of coping in the case of patients over 60 than in the case of the younger generation. Trivializing is less typical for the 41-50-year-old age group than for the 30-40-year-old ones and for the patients over 50. Applying active coping has the highest rate among patients who have a partner. As for questions about distraction, self-encouragement, patients with higher education obtained lower average scores than the ones with a lower education level. The time passed since the diagnosis did not show a significant connection with the applied coping mechanism ( $p < 0.05$ ).

Using factor analysis to analyse the structure of social support, two factors were distinguished (tab. 1). These factors retained together 66.61% of the information of variables. The first factor was named emotional, which involves psychological help, love, and sympathy. Manual help and financial support dominate in the second factor, called physical. We calculated the mean value of factor scores using the one-way analysis of variance method (one-way-ANOVA). The mean value of factor 1 shows a significant difference in relation to age ( $p < 0.05$ ). Patients aged 30-50 years realized social support more favourably ( $x_{a30-40 \text{ years}} = 4.27$ ;  $x_{a41-50 \text{ years}} = 4.21$ ) than those aged 51-70 ( $x_{a51-60 \text{ years}} = 3.63$ ;  $x_{a61-70 \text{ years}} = 3.67$ ). Assessing the mean value of factor 2 we found significant differences related to the place of housing, the number of people living in the household and the time since becoming aware of the disease ( $p < 0.05$ ). Subjects living in a partnership ( $x_a = 4.15$ ), those living in marriage together with their children ( $x_a = 4.44$ ), the ones living in a village ( $x_a = 4.3$ ) and those who have been ill for over a year ( $x_a = 4.25$ ) achieved higher mean scores than single women ( $x_a = 3.72$ ), those who live in towns ( $x_a = 3.97$ ), and those who were diagnosed with the disease within a year ( $x_a = 3.88$ ).

## DISCUSSION

The task of coping research is to reveal the regulatory processes applied by people experiencing loss or being threatened, in order to create a new psychological balance.

The aim of our present study was to measure the disease coping methods of women patients suffering from malignant breast cancer, and the degree of their social support. Our results showed that the most frequently applied coping mechanisms in our sample were active and distractive copings. The least frequent is depressive coping.

According to the results of the examinations among women with breast cancer made by our work group now and earlier, active coping was in the first place among coping mechanisms. Distraction was in the second place, and trivializing was the third method. Religion and the search for meaning is fourth, while depressive coping is in fifth place (10).

According to Tiringer and his colleagues, the coping of patients who have undergone an aorta-coronary bypass operation shows a similar pattern (8).

In our present sample the coping method was defined by age, marital status and education. Distractive coping is not characteristic for patients with higher education; this coping style delays facing the illness. The 41-50-year-old age-group is the least trivializing; it is not typical for them not to believe in the seriousness of the disease, and they do not deny that it is happening to them. In the case of patients over 60 religion has a more important role in the process of coping than in the case of younger patients. Religion is a cognitive coping mechanism; searching for support in belief helps to accept the disease. Gall and his colleagues, examining the characteristics of 93 women suffering from breast cancer, stated that religion helps to struggle with the disease (11). While in the survey made by Henderson among Afro-American women suffering from breast cancer, religion is the coping method applied in the first place, according to the results of our work group, active coping was the first. In our sample religion plays a more important role in accepting the disease only in the case of people over 60 (12).

Marriage, age and valuing the disease as a challenge play the leading role in creating a positive accommodation to the disease. Our results are similar to those of Zrínyi and his colleagues (13).

Examining the degree of social support in our sample, we can state that those who live in a partnership, have children, live in a village, and have known their diagnosis for more than a year, were better supported. Patients who do not have a partner, live alone, live in a town or a city, or have known their diagnosis for less than a year, are less supported.

The importance of support is emphasized by more surveys. Pinquart and his colleagues examined the

**Table 1.** Mean score and reliability of the social support questionnaire (N = 112).

	Type of support	Average (SD)	min	max	% of variation accounted for	Cumulative explanatory force	Cronbach's Alpha Value
Factor 1.	Emotional support	38.09(8.85)	14	50	37.30	37.30	0.93
Factor 2.	Instrumental support	15.38(3.16)	9	20	25.53	62.83	0.75

two-year survival of 50 patients suffering from acute myeloid leukaemia. Social background proved to be the most important protective factor in the decrease of mortality. The other factors of the research (age, the type and strength of chemotherapy) fell behind the degree of feeling socially supported (14). According to the examination by Helgeson and Cohen, in the case of patients suffering from cancer, the presence of social support at an emotional level (e.g. love, sympathy, attention) is more important than physical support (15). However, in the survey of the Goodenows, in which they studied patients suffering from arthritis, the physical dimensions of support decreased the negative feelings and increased the feeling of being supported (16). Schroevers and his colleagues compared a healthy population with one suffering from cancer, according to more dimensions, examining the degree of social support as well. Those patients who did not get the required support from their environment during the first three months later became more depressive than the members of the control group (17).

Plans about the future form a determining part of a family's identity. The threatening loss, which can come to an end with the death of a family member, can often cause the loss of the family's future perspective (18). The type of support determines whether the help leads to a result only in tolerating the disease, or in recovering as well (19).

Psychological help for patients applying ineffective coping mechanisms is important because the activating coping method can also have an effect on developing recidivation. During a 5-year, a 10-year and a 15-year patient follow-up, Greer and his colleagues established that the time of recurrence-free survival was longer in the case of those breast cancer patients who had struggling or denying reactions to their disease than in the case of those for whom hopelessness was typical (20).

Our cross-sectional study examined the coping mechanisms; social support of patients suffering from malignant breast cancer; and the influence of socio-demographic factors on a 112-women-patient sample.

## CONCLUSIONS

1. Emotional and physical support given by family members, friends, and health-care professionals is essential while coping with the disease.

2. The oncological team should provide a protective net, mostly for those town people, living alone, who have known their diagnosis for less than a year.

3. It is essential to measure the coping mechanism applied by the patient, during longitudinal examinations, because the consequences of the disease can be more negative in the case of patients using maladaptive forms. □

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