

recurrence and survival but results have been inconclusive. The impact of psychological interventions in women treated for breast cancer has been evaluated in many trials; however, few randomized trials had been published when we designed our study.

This abstract report the first results of a randomized study aimed at investigating the effect of support intervention on anxiety and quality of life levels in breast cancer patients, with focus on anxiety and depression.

Materials and Method: Newly diagnosed breast cancer patients receiving adjuvant treatment were asked to participate in this study between April 2002 and November 2007. They were stratified according to adjuvant treatment into two groups; those who had undergone surgery, chemotherapy and radiotherapy and those who had undergone surgery and radiotherapy alone. Of 382 eligible patients, 191 were randomized to the intervention group and 191 to control group.

Control patients were subjected to standard follow-up routines.

The intervention group had support intervention at the Foundation Lustgården Mälardalen. Their treatment concept is based on "Learning to live with cancer". The rehabilitation lasted one week on a residential basis followed by four days of follow-up two months later. During the intervention, the patients received information about cancer etiology, risk factors, treatment, physical and psychological effects and coping strategies. They also participated in relaxation training, qigong, and non-verbal communication. Study patients and control patients completed questionnaires after randomization and after 2, 6 and 12 months. We used the Swedish version of the HAD scale.

Results: There were no significant differences in depression scores between the intervention group and the control group. However, patients who had received chemotherapy had significantly higher depression scores after one year ($p=0.042$). There were significant differences in anxiety scores between intervention and control patients after one year ($p=0.019$) and the differences were more pronounced in those who had received chemotherapy.

Conclusion: Support group intervention had a positive effect on anxiety, especially in patients treated with chemotherapy, and this effect lasted for at least one year.

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Poster

"Biographical disruption" in mastectomized women: reconstructive surgery to re-establish a psychological equilibrium

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Background: The perception of physical and psychological well-being is closely linked to one's health status and body image. In women, the breast symbolizes sexuality and fertility. Thus, women treated surgically for breast cancer tend to perceive their disease as a threat to their femininity more than to their physical health.

The aim of the present study was to examine body image and perception of psychological and physical well-being in women undergoing mastectomy, both with and without breast reconstruction, and to evaluate the impact of body alterations and self image on quality of life.

Materials and Methods: The study was carried out on a group of 100 women treated by mastectomy. Average age was 51 years (range 30–66). 55 of those studied underwent simple mastectomy and the remaining 55 mastectomy with immediate reconstruction. All the patients filled out two anonymous questionnaires, one to assess body image and the other, the Short Form Health Survey (SF 36), to evaluate the perception of physical and psychological well-being.

Results: Correlations were established using Bravais-Pearson r-values and comparisons of independent samples. It was found that among patients who underwent reconstruction, there was a positive change in both self-image and the perception of physical health status following the procedure ($r=-0.234$; $p=0.019$), whereas there was a decline in these patients' sense of emotional well-being ($r=0.360$; $p=0.000$). The level of vitality fell in women treated with simple mastectomy ($r=-0.265$; $p=0.000$) and rose in those with reconstruction. There was a negative correlation between body image and social activity ($r=-0.476$; $p=0.000$), giving rise to psychological distress. Body image affected patients' physical and mental well-being ($p<0.001$), while chemotherapy showed no direct correlation with either self-image or physical health status.

A comparison of the two groups showed that physical alterations and the desire to hide one's body were statistically significant in all women undergoing mastectomy ($p<0.001$; $z=3.466$).

Conclusion: Advances in oncologic surgery have given rise to procedures that are increasingly less radical. The results of the foregoing study suggest that the use of silicon gel breast prostheses should be considered an integral part of therapeutic planning in the treatment of breast cancer. Re-establishing body symmetry by restoring body shape as closely as possible to its premorbid condition can allow affected women to remove the visible signs of disease and thus to feel definitively cured. It follows that esthetic outcomes which are less than satisfying (moderate

asymmetry, puckered scarring) have a negative impact on physical well-being. In such cases, patients tend to forget their overall experience with the disease, focusing their attention exclusively on body image.

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Poster

No effect of treatment on self-esteem in breast cancer patients

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Background: The objectives of this prospective longitudinal study were to investigate if self-esteem in women with breast problems changes over time and to determine which variables predict patients' self-esteem. The influence of diagnosis, type of operation, chemotherapy, personality, demographic factors, depression, and fatigue on self-esteem in breast cancer patients was examined one year after surgery.

Material and Methods: Women suspected of having early stage breast cancer ($N=426$) completed the World Health Organization Quality of Life assessment instrument (WHOQOL-100) as well as the Fatigue Assessment Scale (FAS) and the Center for Epidemiologic Studies Depression Scale (CES-D). These questionnaires were completed prior to diagnosis and one year after diagnosis (for patients with a benign breast problem) or surgery (for breast cancer patients). Before diagnosis was known, patients also completed the NEO-FFI personality assessment, measuring neuroticism, extraversion, agreeableness, openness to experience, and conscientiousness, and a demographic questionnaire.

Results: Breast cancer patients had a significant better self-esteem compared with women with a benign breast problem ($p=0.021$). However, no interaction effect ($p=0.534$) and no effect of time was found ($p=0.856$). No differences were found in self-esteem scores between breast cancer patients who were treated with breast conserving therapy (BCT) and patients with modified radical mastectomy (MRM) ($p=0.852$). Scores of these patient groups also did not change significantly over time ($p=0.611$). No differences were found between breast cancer patients treated with or without chemotherapy ($p=0.946$) and no effect of time was found ($p=0.816$). Factors predicting higher scores on self-esteem one year after surgery were low scores on depressive symptoms ($p=0.003$), low scores on fatigue ($p<0.001$), lower scores on neuroticism ($p<0.001$), higher scores on extraversion ($p=0.004$), and openness to experience ($p=0.027$).

Conclusions: Women with a benign breast problem had lower self-esteem compared with breast cancer patients, but scores did not change significantly across time and no interaction effect was found. No group differences and no changes over time were found in self-esteem scores for the different treatment types (BCT versus MRM; with or without chemotherapy). Clinical data, such as diagnosis, type of operation and receiving chemotherapy, did not predict self-esteem one year after surgery. Thus, treatment does not have a significant influence on self-esteem.

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Poster

Positive choices in the face of recurrent and metastatic breast cancer

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Background: Little research has been devoted to understanding the psychological demands and decisional challenges facing women when cancer returns to threaten their lives once again. It is not known if the decision making experience at the initial diagnosis supports or impairs the capacity to make decisions regarding recurrent disease. Further, it is not known if the occurrence of recurrent disease causes a detrimental post-decision appraisal such as guilt, remorse, or regret concerning the decisions made for early stage cancer. The purpose of this study is to close the gaps in our knowledge regarding the decision making experiences of women with recurrent disease.

Material and Method: Using a qualitative approach, the theoretically challenging task was to find an explanation that accounts for the relative ease with which some women make a serious medical decision, and the overwhelmingly difficult and stressful experience of others. Intensive face-to-face interviews with 48 women were conducted at the time of diagnosis using the constant comparative method of Grounded Theory. This systematic approach identified decision processes unique to the context of recurrent and metastatic treatment alternatives.

Results: Analysis of the narrative data reveal ways in which naturalistic (unaided) decision processes express optimistic bias (looking ahead) and hindsight bias (looking back) and how these processes influence decisional quality and psychological coping. A surprising result was the salience of positive thinking women expressed regarding their future, despite evidence