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Difference in patient's acceptance of early versus late initiation of psychosocial support in breast cancer

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Abstract The present study was performed to assess the difference in acceptance of psychosocial counseling and resulting benefits between patients with breast cancer with early or late onset. In a prospective randomized controlled study conducted over 6 months, 41 women with a new diagnosis of early breast cancer (group 1) and 43 patients with advanced breast cancer (group 2) received individually tailored psychosocial support and were compared against controls. This therapy was free of charge, and the duration of support was determined by the patients' wishes and needs. Among the patients with new onset of disease acceptance of the psychosocial counseling was high, and these patients experienced significant improvements in their quality of life. In contrast, acceptance of psychosocial counseling was low in the advanced breast cancer group and the therapy did not improve quality of life over the observation period of 6 months. Early psychosocial support in patients with breast cancer meets with a high acceptance rate and improves quality of life.

Keywords Breast cancer · Psychosocial counseling · Quality of life

Introduction

A diagnosis of breast cancer has a profound effect on patients. Significant psychological distress exists in women with early-stage breast cancer and is exacerbated with disease progression [21]. Common disorders encompass depression, loss of energy, sexual dysfunction, problems with employment [26] and social isolation [24].

While there is only weak evidence for a cancer-prone personality, the psychological reaction to the diagnosis seems to influence the medical outcome [29]. In considering the possibility of relieving psychological distress, public and scientific interest has turned to the awareness that psychosocial counseling should be offered to patients with cancer in addition to medical therapies [10, 13, 18, 22, 25, 27]. Whereas it is well established that conventional adjuvant breast cancer therapy reduces recurrence and mortality [6, 7, 8] and acceptance of it among patients is high, little is known about patients' acceptance and expectations of psychological counseling in various stages of cancer.

We offered individually tailored psychosocial counseling to patients with a new diagnosis of early breast cancer and also to patients with advanced disease in a randomized controlled way. Our objective was to determine the acceptance and impact on quality of life of psychosocial support in different stages of disease.

The aim of psychosocial support was to diminish distress and other adverse effects of medical treatment, to reduce psychosocial discomfort, to preserve the patients' social support systems, and to improve communication within these systems. The outcome measurement in our investigation was subjective self-assessed quality of life, and patients were required to distinguish between health status and nonmedical aspects of their quality of life [9, 11].

Patients and methods

Patients

The patients were divided into two groups according to the stage of their breast cancer:

- Group 1 (Table 1): In all, 45 consecutive patients for whom breast biopsy was planned were enrolled in the study for the event of a malignant result. As in 4 cases benign disease was found, 41 of these patients finally entered the study. They all had operable breast cancer stage I or II and were informed about their disease. Patients were offered psychosocial support at the point when a decision had to be taken with regard to treatment. This therapeutic tool was introduced by a psychologist who was not involved in the study. Patients were then randomized to a group consisting of 18 patients (mean age 53.1 ± 9.7 years) who were to receive psychosocial support and another group of 23 patients (mean age 51.9 ± 9 years) who were to serve as a waiting list control group who did not receive psychosocial support during the observation time. All patients underwent adjuvant radiotherapy; 2 patients had neoadjuvant chemotherapy; 14 (20) patients had adjuvant chemotherapy; and 16 (19) patients had endocrine therapy. Patients and controls were matched for age, disease stage and medical therapy. Patients with metastatic disease were excluded from this arm of the study.
- Group 2 (Table 2): In all, 43 consecutive patients with metastatic breast cancer were enrolled in this arm of the study at the time of diagnosis of disease recurrence. All patients were informed of their diagnosis, stage of disease and available treatments, and received an introduction to the potential benefits of psychosocial counseling from a psychologist who was not involved in the study. The 43 patients were then randomized into one group of 20 patients (61.6 ± 8.7 years) who were to receive psychosocial support, and another group of 23 patients (mean age 62.2 ± 8.1 years) who were to be the waiting list control group and who received no psychosocial support during the observation period. Patients and controls did not differ in terms of age, disease-free interval and medical therapy: 7 (10) patients had visceral metastases; 10 (7) patients had bone metastases; and 3 (6) patients had visceral and bone metastases. The disease-free interval was 4.2 ± 2.4 years (4.2 ± 1.8). Oncological treatment encompassed chemotherapy in 8 (10) patients, radiotherapy in 6 (4) patients, and endocrine therapy in 15 (14) patients. One woman in the study group and 2 in the control group had psychosocial support when breast cancer was first diagnosed, and all patients denied receiving current therapy from other sources. Patients with metastases to the central nervous system were excluded.

Table 1 Baseline characteristics in group 1

	Patients ($n = 18$)	Controls ($n = 23$)
Age (years)	53.1 ± 9.7	51.9 ± 9
Adjuvant radiotherapy	18	23
Neoadjuvant chemotherapy	2	0
Adjuvant chemotherapy	14	20
Endocrine therapy	16	19

Table 2 Baseline characteristics in group 2

	Patients ($n = 20$)	Controls ($n = 23$)
Age (years)	61.6 ± 8.7	62.2 ± 8.1
Visceral metastases	7	10
Bone metastases	10	7
Visceral and bone metastases	3	6
Disease-free interval	4.2 ± 2.4	4.2 ± 1.8
Chemotherapy	8	10
Radiotherapy	6	4
Endocrine therapy	15	14

Psychosocial counseling

Patients had to choose and to contact 1 out of 20 psychologists and psychotherapists. Patients with operable breast cancer arranged the first appointment before surgery, either in the therapist's office or in the hospital. The second contact for this group of patients was on days 2–5 after surgery in the hospital. Further sessions took place in the therapist's office.

For patients with advanced-stage disease, the sessions were held in the therapist's office. The patients in the two waiting list control groups were offered the same psychosocial support after the 6-month observation period. Psychosocial counseling was free of charge to all patients and with no limit on its duration.

Interventions

Psychotherapeutic interventions – modeled upon the concept of crisis intervention [1] in the setting of an individually tailored counseling – used cognitive and behavioral approaches [19, 20]. Interventions included such strategies as problem solving, regaining control, setting new goals for the future, and (optional) spouses' support. Therapy focused on the patients' coping strategies, self-esteem and femininity, overcoming feelings of helplessness, negative thoughts and depression, and promotion of a fighting spirit. Efforts were made to encourage early return to habitual familial and social roles and functions. For sexually active patients, a sexual rehabilitation component was added to the counseling [4]. For symptom control, behavioral techniques and hypnosis were employed to overcome anxiety, pain and vomiting attributable to medical procedures [2]. Exercises in self-hypnosis and progressive muscle relaxation techniques were given.

Evaluation

Quality of life and coping abilities were evaluated in patients with early and advanced disease. Quality of life was the main outcome measurement in our studies. Quality of life is each patient's uniquely personal perception of her health status or of nonmedical aspects of her life. Coping abilities were evaluated in semi-structured interviews. Evaluation in the two studies was the following:

Evaluation of patients and controls was performed by means of a semi-structured interview at study entry and after 3 months, and also by means of visual analogue scales at four time points: at study entry, after the psychological interview, after 3 months and 6 months. Time point 2 (after the interview) was chosen to assess the possible therapeutic value of the psychological interview.

Visual analogue scale

To distinguish health status versus nonmedical phenomena of their quality of life, two different global scales for self-rating were provided, one concerning the patients' own judgement about their health status and the other one for the rating of their perception of their nonmedical quality of life [23]. Each item was represented in the self-assessment instrument by a title and a 10-cm linear analogue scale on which the patient placed a quasi-dimensional mark. The patients were asked to consider the previous 24 h. The left-hand end of each scale was anchored by the term "poor" at the 0 mark, describing the most negative impact on quality of life, and the right-hand end was anchored by the term "excellent" at the 10 mark, describing the opposite extreme of the state. To score patients' responses, the two analogue scales were measured in millimeters from 0. Higher scores thus indicated better health or better quality of life.

Semi-structured interview

Patients' coping abilities were assessed in semi-structured interviews conducted by medical psychologists not involved in the study. This investigator-rated evaluation was based on the cognitive, emotional and behavioral coping skills evaluating scales containing 10 items for each subgroup [14, 15, 16]. The interviews were tape recorded, and for each patient a descriptive rating was performed independently by the interviewer and by another experienced psychologist. The coping ability was then assessed on a scale containing four steps, as proposed in an overview of 15 prospective studies of efficiency of coping with illness [14].

Statistical analysis

Continuous data are presented as mean ± SD. Differences between time points within groups in both studies were compared by Friedman analysis of variance. A P-value <0.05 was regarded as statistically significant. Calculations were performed by statistics software packages (SPSS for Windows 7.5 and GraphPad Prism.

Results

Acceptance of psychosocial counseling in study group 1

Out of 18 patients randomized to receive psychosocial support, 1 (6%) refused to take up this psychosocial support without giving a specific reason.

Fifteen (83%) patients had two to four contacts with the chosen therapist, and the remaining 2 (11%) patients attended for more than four sessions. The reason for discontinuing therapy was improved problem-solving abilities after the first sessions in 14 (78%) patients and sufficient family support in 3 (17%). All 17 (94%) patients who accepted psychosocial support perceived it as an efficacious therapy. The drop-out rate in this study group was thus 1 out of 18 (6%).

Acceptance of psychosocial counseling in study group 2

Out of 20 patients with advanced breast cancer who were randomized to receive psychological counseling, 3 (15%) rejected the offer at study entry. After the first session, 5 (25%) further patients discontinued support, with the argument that they had already had to learn to deal with their disease and that they did not wish to be reminded about it too frequently. A further 6 (30%) discontinued therapy after three to five sessions, 4 of these patients reporting sufficient support from family and/or friends during the past course of their illness. Two out of these 4 patients did not see any advantage in continuing psychosocial support. The remaining 4 patients who discontinued therapy after only a few interventions were satisfied and did not need further sessions. More than six meetings were attended by 6 (30%) patients. In conclusion, 8 (40%) patients with advanced disease accepted psychosocial support as a helpful adjunct to conventional therapies, thus leading to an overall drop-out rate of 60%.

Acceptance of medical treatment

All patients showed close adherence to their medical oncological treatment without dropping out from radio-, chemo- and/or hormone therapy.

Quality of life as assessed by visual analogue scales

- Group 1. Results are given in Table 3. Patients' health-related and nonmedical quality of life improved significantly during the 6-month observation period. Patients showed a deterioration in their health-related quality of life at the third interview performed at 3 months, followed by a significant improvement at the 6-month evaluation ($P=0.02$). In contrast, the worsening in health-related quality of life of controls at 3 months was still significant at the 6-month evaluation ($P<0.0001$). Nonmedical aspects of quality of life improved significantly after

Table 3 Results (mean ± SD) in the early-stage group (18 patients, 23 controls) at baseline, after the first interview, after 3 months and after 6 months

	Baseline	After the 1st interview	After 3 months	After 6 months	*P*-value
Nonmedical aspects of quality of life [0 (worst) to 10 (best value)]					
Patients	5.8 ± 2.0	5.9 ± 2.0	7.9 ± 2.0	8.3 ± 1.8	< 0.0001
Controls	6.0 ± 1.9	6.0 ± 1.8	5.9 ± 1.9	6.5 ± 1.7	n.s.
Health-related quality of life [0 (worst) to 10 (best value)]					
Patients	8.6 ± 0.9	8.6 ± 0.9	7.1 ± 1.4	8.2 ± 1.2	0.02
Controls	8.4 ± 1.0	8.4 ± 1.0	6.3 ± 1.1	6.7 ± 1.0	< 0.0001

Table 4 Results (mean ± SD) in the advanced-stage group (20 patients, 23 controls) at baseline, after the first interview, after 3 months and after 6 months

	Baseline	After the 1st interview	After 3 months	After 6 months	*P*-value
Nonmedical aspects of quality of life [0 (worst) to 10 (best value)]					
Patients	6.3 ± 1.8	6.8 ± 1.5	7.0 ± 1.6	6.7 ± 1.8	n.s.
Controls	6.9 ± 2.1	6.9 ± 2.1	6.8 ± 1.8	6.5 ± 2.0	n.s.
Health-related quality of life [0 (worst) to 10 (best value)]					
Patients	6.7 ± 2.0	6.9 ± 2.1	7.0 ± 2.3	6.8 ± 2.5	n.s.
Controls	6.5 ± 2.2	6.7 ± 2.0	6.9 ± 2.0	7.0 ± 2.1	n.s.

3 months in the patient group receiving psychosocial support ($P < 0.0001$), whereas controls reported no changes of this aspect.

- Group 2. Results are shown in Table 4. Evaluation of patients' and controls' judgement of quality of life by two visual analogue scales (health-related quality of life and nonmedical aspects of quality of life) did not show any significant difference at any of the four assessment points.

Semi-structured interview

Semi-structured interviews were first evaluated for differences in coping abilities between patients and controls for both groups and did not show any significant difference ($P > 0.5$). As the interview was rated independently by two psychologists it was necessary for the correlation between the two ratings to be analyzed; it turned out to be high ($r = 0.86$).

Survival

Differences in survival were evaluated for patients with advanced disease only. Survival did not differ between patients and controls and was 11.4 ± 4.6 months for patients receiving psychosocial support and 10.5 ± 2.7 months for controls ($P = 0.43$).

Discussion

This study primarily reveals a difference in the acceptance and benefits of psychosocial support according to whether it was offered early or late in the course, and it also confirms results of previous studies showing quality of life improved by psychosocial counseling [13, 18, 22]. Early onset of psychosocial counseling at the time of diagnosis in the setting of an individually tailored therapy led to a high level of acceptance and a significant improvement in the patients' quality of life. Conversely, acceptance of psychosocial support and its impact on quality of life were low among patients with advanced disease. It should be noted that beneficial effects were obtained with a relatively short course of counseling, as described previously [13, 17].

The reason for better acceptance of psychosocial support by patients with early stage disease might be the younger age when psychosocial counseling was offered. Younger breast cancer patients show greater distress over a potentially life-threatening diagnosis and the loss or altered appearance of a valued body part [28]. Women's distress in the perioperative period has various sources, ranging from fear of dying while under anesthesia through difficulties in imagining the postoperative result to the extremely stressful period of waiting for the pathology report [24]. Further concerns related to adjuvant therapy with possible hair loss, vomiting and toxic side effects may lead women to seek support. Greater distress and a decline in the quality of life may be further reasons for the better acceptance of psychotherapeutic interventions [3].

In our study, most of the patients with advanced disease who discontinued psychosocial support did not perceive this approach as a valuable tool to improve their quality of life. The goal for most patients in this group was to forget their illness. Some women were content with their family support and glad that the disease was not a subject of concern for family and friends.

Social context and social support from partner, family, friends, relatives and the medical profession are important for survival [5]. The amount of help received from social networks is usually high at the beginning of the disease and during adjuvant therapy, which may reveal the patients' need for support. As time passes and the illness persists, social support from family and friends decreases. The drop in social support may reflect a withdrawal of support by others once the obvious emotional distress is reduced as patients become accustomed to their diagnosis of cancer. Support may also become less available to cancer patients as a result of fears and discomfort that network members may feel toward an ill friend. Conversely, cancer patients often have to curtail their social activities owing to the effects of physical illness and treatment, resulting in limited opportunities to maintain supportive interactions and to receive support.

Psychological reactions to a diagnosis of recurrence of the disease are described as "being back at square one," with additional worry and hopelessness because of the lack of curative treatment possibilities [24]. Hopelessness may be responsible for denial and for unwillingness to face the inevitable, which may be associated with pain and other disease-related discomfort.

Psychosocial interventions are efficacious in helping patients and their families to cope with cancer and its concomitant disorders. Our findings highlight the importance of an early onset of psychosocial support in patients with breast cancer, as it led to a significant improvement in quality of life. This small study provides a rational basis for further and larger investigations to confirm our results. Efforts should be made to incorporate psychosocial support into the treatment cascade offered to cancer patients. Acceptance of psychotherapeutic interventions may rise if this useful therapeutic adjunct is offered to patients routinely.

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