

# Implementation and Benefits of Psychooncological Group Interventions in German Breast Centers: A Pilot Study on Supportive-Expressive Group Therapy for Women with Primary Breast Cancer

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## Key Words

Primary breast cancer · Psychooncology · Supportive-expressive group therapy

## Summary

**Background:** Psychosocial treatment is an integral component in today's comprehensive breast cancer care. The main goal of this study was to test the feasibility (benefits and acceptance) of supportive-expressive group psychotherapy (SEGT), a short-term breast cancer-specific group therapy developed and tested in Anglo-American countries, within breast centers in Germany. **Patients and Methods:** The study was realized as a single-group pre-post design. Data were analyzed by combining quantitative and qualitative research methods. The sample consisted of 49 women with breast cancer stage 1 or 2 according to TNM classification (tumor, node, metastasis). **Results:** The results indicate positive acceptance of the group intervention. Quality of life, tumor-related fatigue and coping strategies improved after SEGT. 1 year after the intervention, the patients report lasting positive results from the group intervention. **Conclusions:** This pilot study illustrates the importance of psychooncological group interventions for breast cancer patients and indicates that this form of outpatient psychooncological care is feasible within the German health care system, and breast centers in particular. Effectiveness has to be investigated in randomized controlled trials.

## Schlüsselwörter

Brustkrebs, primärer · Psychoonkologie · Gruppentherapie, supportiv-expressive

## Zusammenfassung

**Hintergrund:** Psychosoziale Behandlungsangebote sind heute integraler Bestandteil der Brustkrebsbehandlung. Die vorliegende Studie hatte zum Ziel, die Durchführbarkeit (Nutzen und Akzeptanz) einer supportiv-expressiven Gruppenpsychotherapie (SEGT), einer in anglo-amerikanischen Ländern entwickelten und getesteten psychoonkologischen Kurzzeitintervention für Brustkrebspatientinnen, in der Routineversorgung von Brustzentren in Deutschland zu überprüfen. **Patientinnen und Methoden:** Die Studie wurde als Eingruppen-Prä-Post-Design durchgeführt. Für die Datenerhebung und -analyse wurden quantitative und qualitative Forschungsmethoden kombiniert. Die Stichprobe bestand aus 49 Frauen mit primärem Brustkrebs (Tumorstadien T1 und T2, nach TNM-Klassifikation (Tumor, Lymphknoten, Metastasen)). **Ergebnisse:** Die Ergebnisse deuten auf eine gute Akzeptanz der Gruppenintervention hin. Nach der SEGT zeigten sich Verbesserungen im Bereich der Lebensqualität, der tumorbedingten Fatigue und der Krankheitsverarbeitung. Ein Jahr nach Abschluss der Gruppenintervention berichten die Patientinnen anhaltend positive Ergebnisse. **Schlussfolgerungen:** Die Studie unterstreicht die Bedeutung psychoonkologischer Gruppentherapien für Brustkrebspatientinnen und zeigt, dass diese Form der ambulanten psychoonkologischen Behandlung in Brustkrebszentren in Deutschland durchführbar ist. Im Rahmen zukünftiger Forschung sollten präzise Wirksamkeiten und langfristige Effekte durch randomisierte, kontrollierte Studien untersucht werden.

## Introduction

Psychosocial dimensions of coping with breast cancer have become a central aspect of oncological care. Women undergoing diagnosis and treatment of primary breast cancer are confronted with a variety of stressors. Studies have shown that 30–50% of women are highly distressed after surgery and during adjuvant treatment [1, 2]. The year after diagnosis is most critical for developing psychological distress. Mental health problems during adjuvant cancer treatment have been found to be associated with poorer quality of life up to 3 years after diagnosis [3, 4]. Randomized clinical trials have shown that psychosocial interventions for breast cancer patients enhance coping, social support and quality of life and reduce psychological distress [5]. Besides individual psychooncological care, group psychotherapy has been described as helpful [6, 7].

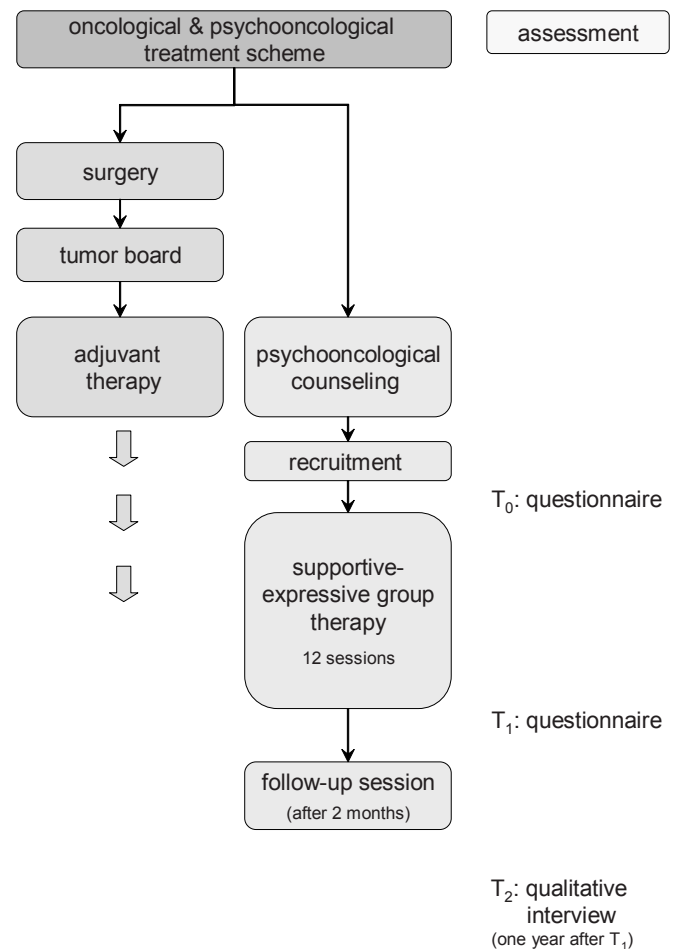
Psychosocial treatment is an integral component in today's comprehensive breast cancer care. In Germany, psychosocial treatment currently gains further support by the implementation of criteria of the German Cancer Society for certified breast centers (zertifizierte Brustzentren) [8], the newly revised guidelines for diagnosis, treatment and aftercare for breast cancer [9], and the guidelines of the Disease Management Program for breast cancer implemented by the health insurance funds. These regulations ascertain basic psychosocial care. However, specific interventions, targeting psychological distress and mood disturbances, are missing.

In order to improve psychological care in breast centers, this pilot study aims to test the feasibility of short-term breast cancer-specific group therapy within the German health care system. The feasibility includes the evaluation of benefits of the short-term group therapy for the patients and its acceptance by the patients. In addition, the patients' experiences with this therapy were evaluated by adding qualitative research methods to quantitative methods. Supportive-expressive group therapy (SEGT) is one of the main group therapy models in oncology [10]. However, to the best of our knowledge, this is the first report on the implementation of SEGT in Germany.

## Methods

### Sample

Patients were recruited in 2 breast centers in Freiburg, Germany, between 2005 and 2008 in 4 recruitment phases. As part of the psychosocial treatment in the centers, patients were offered psychooncological consultations. During the recruitment phases preceding the initiation of groups for SEGT, patients were informed about the therapy. In a preliminary individual session with one of the therapists, potential participants were assessed for eligibility. Moreover, all patients were informed about the study, were assured of confidentiality and were asked for informed consent. Participants had to fulfill the following eligibility criteria: (a)  $\geq 18$  years of age, (b) capability to understand and speak the German lan-



**Fig. 1.** Treatment scheme.

guage, (c) diagnosed with primary breast cancer, and (d) sufficient physical stability. Criteria for exclusion were (a) severe mental disorders, with the exception of affective and anxiety disorders, (b) acute suicidal tendency or suicide attempts in the past year, and (c) severe cognitive impairment. 75% of the women attending the psychooncological consultations and fulfilling the inclusion criteria accepted to participate in the group therapy.

### Intervention

SEGT is a manual-based outpatient psychotherapy approach that was specifically developed for the needs of cancer patients. Originally, it was implemented for patients with metastasized breast cancer [11, 12]. This longer-term treatment has been adapted to a brief treatment of 12 weekly sessions (1.5 h) for patients with primary breast cancer [13, 14]. The process-oriented therapeutic approach focuses on developing the capability to express emotions, the fortification of personal resources and social support, and the reduction of social isolation due to illness. Consistent with the model's existential orientation, the prospect of mortality is addressed by working through the fears of death and dying as well as the mourning of the loss of roles. The individual gains the opportunity to review life priorities and enhance her sense of control over her internal and interpersonal life dealing with the illness [10, 15]. In total, 7 SEGTs were realized in this pilot study, including  $n = 49$  primary breast cancer patients. Each group was led by 2 trained therapists, at least one of them being a licensed psychotherapist and specialized in psychooncology. The first author (K.R.) was trained in SEGT by Prof. Spiegel and his group at Stanford University, from where the approach originated. K.R. trained and super-

vised all co-therapists of this study on the basis of the treatment manuals [13, 15]. Group sessions were video taped in order to monitor treatment adherence. In addition to the 12 weekly sessions, a follow-up session after 2 months was conducted by the psychooncologist.

#### Measures and Statistics

The study has a single-group pre-post design and was implemented into the routine daily care of the breast centers. Most women participated in the group therapy during the time of adjuvant treatment. The patients had to complete 2 questionnaires including the outcome measures, one before ( $T_0$ ) and one after the intervention ( $T_1$ ) (fig. 1). Pre-post effect sizes were calculated.

Both self-report questionnaires included several instruments:

- Psychological distress: hospital anxiety and depression scale – German version (HADS-D) [16]
- Quality of life: European Organization for Research and Treatment of Cancer quality-of-life questionnaire – core 30 (EORTC QLQ-C30) [17] and breast cancer module (EORTC QLQ-BR23) [18]
- Coping with the illness: Trierer Skalen zur Krankheitsbewältigung (TSK) [19]
- Patient satisfaction: Fragebogen zur Messung der allgemeinen Patientenzufriedenheit (ZUF-8) [20]
- Patients' experiences with therapy: group experience questionnaire (GEQ) [21] and qualitative interviews

For the qualitative follow-up examination, 6 patients out of 49 who had completed a SEGT in the past year and agreed to be interviewed were recruited ( $T_2$ ). The interviews were analyzed and rated using grounded theory, a common method in qualitative research [22].

## Results

#### Patients

The study sample consisted of 49 women with a mean age of 46.8 years (table 1). Almost 80% had a low or medium educational level. Most patients were diagnosed with breast cancer stage 1 or 2. Most women joined the group therapy shortly after diagnosis. 49% of the women had a breast-conserving therapy and the other half underwent a mastectomy. Two-thirds received chemotherapy (table 1). As 10 patients dropped out of the study and 1 patient's data was incomplete, 38 patients were included in the pre-post analyses.

#### Benefits

Positive changes from pre to post intervention occurred especially with regard to quality of life (table 2). The strongest effects were found for *global quality of life* (effect size ( $es$ ) = 0.55) and for *future perspectives* ( $es$  = 0.43). Small effect sizes based on statistically significant pre-post differences were found for *emotional functioning* and for the symptom-scale *fatigue*, as well as for *search for affiliation* within the coping strategies (table 2). Furthermore, small effect sizes were seen for reduction of sleep disturbances and the intensity of pain, although pre-post differences were not significant. Regarding psychological distress (assessed with HADS), no relevant overall effect sizes were found and the proportion of patients scoring above the cut-off score for psychological distress from pre- to post-intervention remained the same.

**Table 1.** Demographic and medical characteristics of patients

Parameter	Value
<i>Sociodemographic data, n = 49</i>	
Age, years	
Mean	46.8
Range (SD)	31–66 (8.2)
Citizenship, n (%)	
German	46 (93.9)
Other	3 (6.1)
Marital status, n (%)	
Single	7 (14.3)
Married	33 (67.3)
Separated/divorced	8 (16.3)
Educational level, n (%)	
Low	16 (33.3)
Medium	22 (45.8)
High	9 (18.8)
<i>Medical data</i>	
Time since diagnosis, months	
Mean	8.6 <sup>a</sup>
Range (SD)	1–48 (10.0)
T, n (%)	
1	31 (67.4)
2	13 (26.5)
3	5 (10.2)
4	3 (6.1)
N, n (%)	
0	27 (57.1)
1	13 (26.5)
2	5 (10.2)
3	3 (6.1)
M, n (%)	
0	44 (97.9)
1	1 (2.1) <sup>b</sup>
Treatment, n (%)	
Surgery	49 (100.0)
Mastectomy/lumpectomy	25:24 (51:49)
Chemotherapy	33 (67.3)
Radiotherapy	28 (57.1)
Antihormonal treatment	22 (44.9)
Antibody therapy	2 (4.1)

<sup>a</sup>1 patient joined the group after distressing surgery for breast reconstruction 4 years after diagnosis.

<sup>b</sup>1 patient entered group therapy for primary breast cancer without knowledge that the tumor had already metastasized.

#### Acceptance

All 10 patients (20.4%) dropping out of the intervention stopped attending the group within the first 5 sessions. 5 patients dropped out because of interference between the group sessions and their medical treatment or lack of motivation. For the other 5 patients, distress was caused by group participation. Among the participating patients, each patient was on average absent during 2.1 sessions (range: 1–5 sessions). Rea-

**Table 2.** Changes in quality of life, distress and coping

	Pre, n = 38	Post, n = 38	Effect size	p
Quality of life <sup>a</sup> , mean (SD)				
Global quality of life	54.8 (18.1)	64.5 (16.9)	0.55	0.002*
Physical functioning	78.4 (16.7)	80.5 (16.4)	0.13	0.331
Role functioning	56.1 (29.1)	61.0 (27.2)	0.17	0.284
Emotional functioning	48.2 (22.2)	56.0 (22.1)	0.35	0.047*
Cognitive functioning	62.7 (27.2)	68.0 (28.3)	0.19	0.103
Social functioning	54.8 (29.0)	60.5 (24.9)	0.21	0.124
Fatigue	53.9 (24.1)	47.0 (22.4)	0.27	0.046*
Sleep disturbance	38.2 (40.4)	50.0 (33.0)	0.35	0.077
Body image	53.5 (31.7)	59.0 (28.2)	0.18	0.232
Sexual functioning	28.4 (22.5)	30.1 (26.3)	0.06	0.634
Sexual enjoyment	61.9 (34.2)	65.0 (17.0)	0.11	0.521
Future perspective	28.9 (27.0)	41.4 (30.8)	0.43	0.021*
Systematic therapy side effects	35.0 (20.2)	31.2 (20.5)	0.19	0.174
Breast symptoms	35.2 (21.4)	31.5 (23.1)	0.17	0.320
Arm symptoms	36.4 (24.7)	35.7 (27.9)	0.03	0.661
Upset by hair loss	50.0 (36.7)	49.0 (41.0)	0.03	0.337
Intensity of pain (range 0–10) <sup>b</sup>	4.2 (2.1)	3.7 (2.4)	0.22	0.149
Distress <sup>c</sup> , mean (SD)				
Depression	6.2 (3.7)	5.6 (3.4)	0.17	0.075
Cut-off $\geq 7^d$	31.6% (n = 12)	28.9% (n = 11)	0.03	0.847
Anxiety	8.3 (3.8)	8.2 (4.0)		
Cut-off $\geq 7^d$	52.6% (n = 20)	55.3% (n = 21)		
Coping <sup>e</sup> , mean (SD)				
Threat minimization	37.9 (4.3)	37.0 (4.5)	0.2	0.225
Rumination	30.2 (7.9)	29.7 (6.7)	0.06	0.787
Information seeking	31.1 (5.9)	31.8 (5.8)	0.12	0.385
Search for meaning in religion	9.9 (4.2)	9.8 (3.6)	0.02	0.867
Search for affiliation	34.7 (6.8)	36.5 (4.5)	0.31	0.009*

\* $p < 0.05$ .

<sup>a</sup>EORTC QLQ-C30 and EORTC QLQ-BR23.

<sup>b</sup>Mean values between 0 and 10; 0 = no pain, 10 = unbearable pain.

<sup>c</sup>HADS-D.

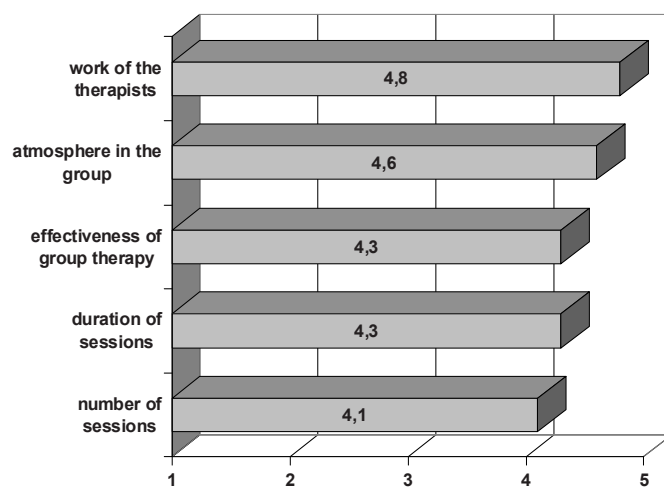
<sup>d</sup>Validated cut-off scores for depression and anxiety subscale [16].

<sup>e</sup>TSK.

sons were mostly due to medical treatment or in-patient rehabilitation programs. The patients were highly satisfied with the therapeutic treatment they received (overall scale of the ZUF-8 with a mean of 28.5 (standard deviation (SD) 3.2)), which is clearly above the validated cut-off point of 24 [23]. Furthermore, different aspects of the group therapy (e.g. the work of the therapists, the atmosphere in the group) were very satisfying for the patients (fig. 2).

#### Patients' experiences with therapy

The most important experiences (assessed with the GEQ and qualitative follow-up interviews) were *receiving support and encouragement* and *gaining information and understanding*. Participation in the SEGT led to positive *changes in relationships* with others, *changes in life priorities* and *intrapersonal changes*. Patients also emphasized the importance of the opportunity to express their feelings and discuss their fears



**Fig. 2.** Satisfaction with supportive-expressive group therapy (ranging from 1 = very bad to 5 = excellent).

about death with others during the group therapy. As a result of the discussions, the patients realized that they were not alone with their fears. Furthermore, patients expressed in the interviews that even after 1 year the group still plays a role in their everyday life. Ongoing stabilizing relationships between group members were often reported. The process that was launched during the group therapy is continuing, and the patients have integrated the psychotherapy experience into their current lives.

## Discussion

The main goal of this study was to test the feasibility (benefits and acceptance) of the SEGT, a short-term breast cancer-specific therapy, within breast centers in Germany. The study was realized as a single-group pre-post design. The group therapies were integrated into the regular somatic treatment procedures within the breast centers. The study combined quantitative and qualitative research methods, being described as an enrichment for a deeper understanding of clinical effects of interventions [24].

The results show a positive acceptance of the group intervention and high satisfaction levels by our patients. 75% of the women who were offered group therapy chose to participate. The attendance rate of group sessions and the drop-out rate were comparable to randomized group intervention studies with cancer patients conducted in Anglo-American countries [5, 25]. Although studies on patient satisfaction have shown that the rates of treatment satisfaction often have a ceiling effect, which reduces their validity, the satisfaction scores reported by all patients treated in this study are remarkably high. This underlines the great value of professionally led group therapy for breast cancer patients during or right after adjuvant treatment. Furthermore, the results show improvements in the quality of life, a reduction of fatigue, and some improvements in coping strategies from pre- to post-intervention. These results are comparable with the small to medium effect sizes found in other large-scale intervention studies [26], suggesting that SEGT is beneficial for patients with primary breast cancer in Germany. However, no overall changes could be found for psychological distress (HADS scores). This floor effect is possibly due to the inclusion of patients with no or minor psychological distress prior to the intervention. The results of our qualitative follow-up evaluation point out that participation in SEGT provides the opportunity for patients to work through their individual and social issues with having breast cancer. Although SEGT is not a psychoeducational program, the patients report benefits from information and understanding about the cancer disease. Moreover, the interviews revealed that the group therapy had long-term positive effects. 1 year after the intervention, patients still consider the group to be important in their daily life, espe-

cially because of continuing supportive relationships with other group members. This finding, among others, illustrates the importance of psychooncological group interventions for breast cancer patients.

The pilot study has some limitations. First, there is a self-selection of the patients in the recruitment. Second, the design lacks a control group, which makes a comparison to untreated patients impossible. Therefore, the treatment results have to be interpreted with caution, leaving it open whether improvements are due to treatment or to a natural time effect. A randomized controlled trial with a larger sample would be the next step to test the effectiveness of SEGT within the German health care system. To that end, future studies should focus on women with higher initial levels of distress. Further research should also include longer follow-up assessments to explore whether the encouraging qualitative results on long-term effects of SEGT can be confirmed with quantitative methods.

## Conclusion

Short-term group therapies according to the SEGT model can be conducted within the framework and the treatment routine of certified breast centers. Patients treated for primary breast cancer report benefits from this intervention regarding their quality of life and coping with the illness. Helpful experiences from the therapeutic process and the support from other patients were long lasting. The results of this pilot study indicate that this form of psychooncological care is feasible within the German health care system and that manual-based short-term group interventions are a potent way for breast centers to fulfill their goal as providers of psychooncological care.

## Acknowledgements

This work was supported by research funding from the Felix-Burda Stiftung, München. The following breast centers collaborated in the study: Brustzentrum Südbaden and Brustzentrum der Universitäts-Frauenklinik, Freiburg. We thank Markus Birmele, Barbara Vogel, Gisela Mehren and Stefanie Weingärtner for their dedicated participation as therapists and co-therapists in the study.

## Declaration

The trial protocol has been approved by the ethical committee of the University of Freiburg and meets the standards of the Declaration of Helsinki in its revised version of 1975 and its amendments of 1983, 1989, and 1996 [27].

## Conflict of Interest

The authors declare to have no conflicts of interests.



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