Chapter 4

Effect of Phone Interviews and Anger Management Training Provided to Caregivers of the Patients with Breast Cancer in Turkey

Birgül Özkan, Selahattin Menteş and
Gökmen Zarasız

Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/intechopen.70435

Abstract

Background: Psychosocial interventions involve anger management training and phone interviews to the family of the patients with breast cancer.

Aims: The present study aimed to measure the effect of phone interviews and anger management training provided to patients with breast cancer on the levels of emotional expression and caregiver burden.

Study design: The present study was conducted as a randomized-controlled experimental study (experiment-control groups with pretest and posttest design) between 2012 and 2013.

Methods: The study was conducted on caregivers of the patients with breast cancer who received radiotherapy in Radiation Oncology Center in Turkey. The experiment and control groups included 22 and 20 subjects, respectively. All subjects completed a survey about general features, Level of Expressed Emotion (LEE) Scale and Zarit Caregiver Burden Scale.

Results: A significant difference was found between study and control groups in terms of mean overall general expression emotion and Zarit Caregiver Burden scores ($P < 0.05$). A significant difference was found between measurements ($P < 0.05$).

Conclusions: It is recommended to provide home care (e.g. phone interviews, home visits) following anger management training in patients with breast cancer and to arrange education program for those who received radiotherapy.

Keywords: anger management, breast cancer, caregivers, support, telephone follow-up

1. Introduction

In recent years, shorter hospital stays, limited discharge planning, and expansion of home care technology have placed increased costs as well as increased care responsibilities on families [1–3]. As care has shifted from the hospital to the home, the role of the family caregiver has been transformed into a complex responsibility [2]. Unfortunately, involvement of family caregivers is essential for optimal treatment of cancer patients, especially in ensuring social support and patients in the home care [2, 4].

Caregivers function as home health aides and companions. They are expected to provide patients with emotional support, conversation, and other forms of distraction [5–7]. A major body of research indicates that household family who provide care to individuals with chronical situation are themselves at risk. Emotional, mental, and physical health problems result from complex caregiving situations and the strains of caring for weak or disabled relatives [5, 6]. The mental health of the family caregiver is negatively moved by providing care. Higher levels of stress, anxiety, depression and other mental health effects are common among family members who care for an older relative or friend [7, 8]. Several works have indicated that caregivers use recipe and psychotropic drugs more than noncaregivers [9–11]. Family caregivers are at greater risk for higher levels of hostility than noncaregivers [12]. Marriage caregivers who are at risk of clinical depression and are caring for a annulment with significant cognitive annulment and/or physical care needs are more likely to keep in detrimental behavior toward their beloved one [9–11].

In Turkey's health of oncology services, treatment and care of patients with breast cancer are provided only during hospitalization and home care cannot be provided after discharge. There are few work related to emotion expression and family burden in caregivers of patient with breast cancer in Turkey [13–15]. Therefore, these studies are needed.

Emotion expression is very important for the families of patients with cancer. Expressed emotion forward it to our needs and expectations of others is a way [16]. The concept of expressed emotion; be critical, hostile take extreme interest to hear, not intrusive, intimacy and includes positive comments. Expressed emotion includes some sub-terms. One of them is criticism; the nature of the other critics blame, resentment, contains statements such as dislike and disapproval hostile, often defined as a negative expressed emotion. Excessive not interested and not excessively intrusive protect and nurture, the restrictive, controlling and diver/refers to intrusive behavior [16, 17]. These studies show that there are a positive relationship between emotion, expression, and family burden.

Burden is the caregiver's response to the stressors engendered by caring for the patient with cancer that may result in negative role perception. Burden may be conceptualized as a multidimensional concept with objective and subjective components [18, 19]. Objective burden is defined as concrete cases, occurrences and activities related to caregiving, such as financial problems and personal activity limitations. Subjective burden is defined as sentimental answer to the caregiver experience, such as feelings and emotions related to fear, strain, or guilt [20–22]. It is important to reduce the burden and expression of emotions of caregivers with breast cancer. Apply to the study, interventions for families were restricted [18, 19].

Follow-up by phone is considered to be new and an innovative model that may facilitate home care for patients with cancers and caregivers, and difficulties in patient care may be reduced by this new paradigm model. There are studies which have indicated that phone based follow-up services can be used in clinical care, education and researches [20–22]. At the same time, follow-up services in home care for the patients with breast cancer may be provided through many ways; such as video conference, e-mail, website and phone. In this study, anger management, and telephone follow-up intervention effect for the caregivers of the patients were investigated.

This research was planned to determine the effect of anger management given to the caregivers of patients with breast cancer in the clinic and telephone follow-up provided by orderly phone, on their expression of emotions and family burden levels.

2. Material and methods

The present study was conducted as a randomized-controlled experimental study (including experimental and control groups with pretest and posttest design) in 2013. It was approved by Ethics Committee. The study conducted on patients with breast cancer who received radiotherapy in Radiation Oncology Center of a University, Oncology Hospital in ambulatory settings in Turkey. The experimental and control groups involved 22 and 20 subjects, in order of. After data collection, α value was found as 0.05 while power as 100% in the power analysis of all scales used in the research The research was carry out randomly with a sample set of criteria. After identifying the experimental and control group all the scales were applied to both groups.

In the present study, both experimental and control groups completed a survey about general characteristics, The Level of Expressed Emotion (LEE) Scale, The Zarit Family Burden Assessment Scale.

Caregiver selection criteria for experimental and control groups:

- Being aged between 18 and 65 years
- Having caregiver of patient with breast cancer
- Being graduated from primary school

General survey sheet

The survey sheet included 10 questions about demographic features of the subjects as well as another 10 questions about disease history

The Level of Expressed Emotion (LEE) Scale, developed by Cole and Kazarian and adapted to Turkish by Berksun [16] is applied to the caregivers. High scores indicate high level of negative expression of emotions. The Level of Expressed Emotion (LEE) Scale was developed to provide an index of the perceived emotional climate in a person’s influential relationships. Unlike existing measures, the scale was constructed on the basis of a conceptual framework described by expressed emotion theorists. In addition to providing an overall score, the 60-item scale assesses the following four characteristic attitudes or response styles of significant others: Intrusiveness, emotional response, attitude toward illness, and tolerance/expectations.

The Zarit Family Burden Assessment Scale was developed by Martín et al. [17] and adapted to Turkish by Ozlu et al [18]. High scores indicate high family burden. The Zarit Family Burden Assessment Scale is 22-items instrument for measuring caregiver's perceived burden of providing family care. The 22 items are assessed on a 5-point likert scale ranging from 0 = "never" to 4 = "nearly always". Items score are added up to total score ranging from 0 to 88. High scores is indicated greated burden.

Phone-based follow-up of caregivers was carried out with the follow-up by phone form.

Phases of investigation

The patients in experimental group received anger management training during their radiotherapy period. Anger management trainings were given by two or three sessions. Each session was performed over 25–30 minutes. During this period, controls of caregivers underwent no intervention. After radiotherapy, follow-up by phone interview (weekly) were performed for 6 months in experimental group. Phone interviews included counseling. In the present study, supporting follow-up by phone was performed.

In all subjects, The Level of Expressed Emotion (LEE) Scale, The Zarit Family Burden Assessment Scale were completed by researchers via face-to-face interview during radiotherapy, one month after anger management training and 6-months follow-up period achieved by phone interviews.

The data acquire subjects in experimental and control groups were resolve by using chisquare significance test, t test and two-way analysis of variance for repeated measurements. Bonferroni and Least Significant Difference (LSD) tests were performed to identify the source of difference in the variables that are found to be significance in the analysis of variance. All statistical analyses were performed by using SPSS Statistics 20.0 (IBM SPSS Inc, Chicago, ILL, USA). $P < 0.05$ was well-considered as significant.

The Content of Anger and Management Skills Training Anger; the causes of anger in caregivers, effective and ineffective coping behavior with anger issues and the importance of emotional expression included.

3. Results

The experimental and control groups were composed of caregivers of patients' families. Randomization was performed according to certain characteristics of the caregivers. According to this; the age, educational status and pathological state of the patients were selected to be similar and no significant difference was found between experiment and control groups ($P > 0.05$).

Table 1 submits mean scores in expressed emotion scales and subscales of the patients in experiment and control groups after anger management training and follow-up period. The group impact on mean overall expressed emotion score was found to be significant ($P < 0.05$). Measurement/time effect on mean expressed emotion score was also found to be significant ($P < 0.05$; **Table 1**). In the multiple comparisons performed to identify the source of difference in the experiment group, mean overconcern/over protectiveness score and criticim/hostility score after follow-up was establish to be lower compared to after training and before training ($P < 0.05$; **Table 1**).

In the multiple comparisons implement to identify the source of difference in the experiment group, mean overall expressed emotion score after follow-up was set up be lower compared to after training and increased before training. In the multiple comparisons performed to identify the source of difference in the control group, the difference was found to be significant in the comparison of mean expressed emotion score obtained after training to those obtained after follow-up, while no significant difference was found in other comparisons. In addition, significant difference was found between mean expressed emotion scores obtained before and after training in patients in the experiment group. Over again, significant difference was based on between experiment and control groups concerning mean overall expressed emotion score ($P < 0.05$). The group and time interactions of mean expressed emotion scores were found to be significant ($P < 0.05$; **Table 1**).

Table 2 presents mean overall Zarit Family Burden scores of subjects in experiment and control groups found before and after training as well as those found after follow-up period. The group effect on mean overall Zarit Family Burden score was found to be significant ($P < 0.05$; **Table 1**). In the multiple comparisons performed to identify the source of difference in the experiment group, mean overall Zarit Family Burden score had after follow-up period was base upon be significantly lower crosscheck to those obtained both before and after training ($P < 0.05$). In the comparisons performed to identify the source of difference in the control group, no significant difference was found in mean overall Zarit Family Burden scores obtained after follow-up compared to those obtained both before and after training ($P > 0.05$; **Table 1**)

Groups	**Time**	**Mean scores of overall Expressed Emotion Scale**		
		Overconcern/over protectiveness $\bar{x}$ ± SS	**Criticim/hostility $\bar{x}$ ± SS**	**General point $\bar{x}$ ± SS**
Experimental	First hospitalized	10.70 ± 3.49^{a}	7.65 ± 3.01^{a}	17.85 ± 4.72^{a}
	After discharge	11.50 ± 3.45^{b}	9.35 ± 2.99^{b}	20.35 ± 5.61^{b}
	Sixth month follow-up	10.35 ± 3.74^{a}	7.15 ± 3.52^{c}	18.00 ± 4.67^{b}
Control	First hospitalized	11.68 ± 3.46^{a}	10.31 ± 2.96^{a}	22.00 ± 3.20^{a}
	After discharge	15.45 ± 4.17^{a}	12.68 ± 2.55^{b}	28.40 ± 5.28^{b}
	Sixth month follow-up	15.00 ± 2.29^{a}	12.90 ± 2.79^{b}	25.90 ± 2.92^{c}
Test	Time			
	Time + Group			
	Group			
	*P**	<0.005	<0.005	<0.005
	P+	<0.005	<0.005	<0.005
	P#	<0.005	<0.005	<0.005

*P** = inter-group, *P*+ = between measurements/times, *P*# = group and time interaction.

The results of in-group multi-comparisons of the experimental and control groups were displayed with alphabethic superscripts; the same letters indicating an insignificant statistical difference between the measurement times and different letters indicating a statistically significant difference.

Table 1. The mean scores of Expressed Emotion Scale of the caregivers in the experimental and the control groups telephone follow-up.

Groups	Time	Family burden general point $\bar{x} \pm SS$
Experimental	First hospitalized	73.31 ± 15.14^a
	After discharge	62.27 ± 8.25^b
	Sixth month follow-up	49.40 ± 6.74^c
Control	First hospitalized	57.65 ± 10.90^a
	After discharge	67.05 ± 9.19^a
	Sixth month follow-up	66.45 ± 8.20^a
Test		*F*
	Time	0.56
	Time + Group	0.16
	Group	0.62
	*P**	<0.001
	P+	<0.005
	P#	<0.001

*P** = inter-group, *P+* = between measurements/times, *P#* = group and time interaction.

The results of in-group multi-comparisons of the experimental and control groups were displayed with alphabethic superscripts; the same letters indicating an insignificant statistical difference between the measurement times and different letters indicating a statistically significant difference.

Table 2. The meanscores of Zarit Family Burden Scale of the caregivers in the experimental and control groups telephone follow-up.

4. Discussion

This study was designed to test the efficacy of a consultan intervention designed to improve caregivers with breast cancer patients. In addition to the issues that people with breast cancer face with; their relatives are experiencing some difficulties too. Related studies are expressing that the difficulties which patients and their relatives experience differ from each other [23]. The reason behind the problems of the patients is mostly their perception of disease and the disease itself whereas their relatives have problems related to the reactions that the patient gives. Even it is not adequate for the current health regulations on holistic treatments, it can be expressed that the patients are treated in a sufficient way whereas the treatments for their relatives are being limited with the researches. Therefore, the difficulties of the relatives of people with breast cancer must be determined and their abilities to overcome these difficulties must be improved. The primary problem of these relatives is the fact that they are constantly accompanying a patient and since they give care to this patient, there is a limitation of free time to spend for themselves or their family members [24]. Moreover, they are being forced to become caregiver. They often face with the difficulty of expression of feelings and suppression of anger, fury, etc. Design of this study is based on the reasons mentioned above.

This treatment is designed for the relatives of the patients in order to provide them an opportunity to express themselves and understand their patients more. The instruction that is given to the relatives of patients includes the ways of expressing fury and improvement of the methods of overcoming these feelings. With these instructions, relatives succeed in the expression of anger, fury and these kinds of feelings to the patient without feeling shame and guilt [25]. According to the results obtained from the study, it can be seen that total average of the expression of feeling values for the experimental group are significantly higher than the control group (**Table 1**) and it is determined that Zarit Caregiver Burden values are also decreased significantly (**Table 2**). When these results are considered together, it can be stated that with the increase of the ability to overcome expression emotion, relatives can express themselves easily and related to these, the burden they feel is being decreased. The current studies on this issue and our study have similar results [22, 26, 27]. For instance in a work admissibility and practicality of distant automated telephone follow-up annually, after breast cancer, as well as usual mammograms, the main objectives were to evolved the invention of psychosocial worry and of treatment-related lateral-effects among patients who had completed their adjuvant chemo-radiotherapy [20].

Conducting studies by telephone counseling to caregivers of cancer patients is very limited. The studies are related more patients with breast cancer. Therefore the results of similar studies in the discussion of our findings in the study were used coping with stress, to quality of life affecting comes among factors of the expression of mood and maintenance burden in caregivers. In studies conducted on this subject; the primary outcomes were psychological morbidity (state-trait anxiety inventory), general health questionnaire (GHQ-12), participants' needs for information, participants' satisfaction, clinical investigations ordered, and time to detection of recurrent disease. Caregivers in the intervention group decresed interest in over protectiveness compared to control caregivers. Our previous intervention research has shown decresed in ver protectiveness [28–30], even when delivered through a primary care setting (**Table 1**).

This result ensures support for forthcoming investigation that strictly evaluates these types of interventions. Not only is it possible to conduct efficacy studies in this setting, but also it is necessary to do so to enable later spreading of efficacious interventions to health and clinical settings [30]. We should use the same high standards of evaluation for electronic and interactive interventions that we use for print and other interventions. The positive effects of the intervention presented here pointed out that phone-based of follow-up interventions can change health attitude this lends support for design, development, and evaluation of future similar interventions in other applications and settings [28–30].

5. Limitation

There are many limitations to the present study that limit the generalization. Since our study is experimental and the sample group containing the relatives of patients is restricted with 20 people, number of sample group members is one of these limitations. This study is randomized controlled and it is suggested that the positive results of the sample group must be applied over a wider population. Second limitation of the study is the duration of monitoring and it is planned to have longer telephone based monitoring

6. Conclusion

If the results of the current studies on this issue and our findings are evaluated together, it can be stated that relatives of breast cancer patients must be approached similar to these patients and they should be taught about the skills of overcoming the difficulties related to their situation. In order to develop these skills, assistance groups must be developed for personal or collective improvement. If needed, these relatives must be supported to create their own groups. Sanitary crew must consider these patients and their relatives as a member of the crew and organize programs in order to prevent them from feeling alone and desperate at no step. Also, more planning should be done for the relatives of the patients in order to facilitate the expression of their feelings such as anger, fury and despair.

Author details

Birgül Özkan[1]*, Selahattin Menteş[2] and Gökmen Zarasız[3]

*Address all correspondence to: Ozkanbirgul7@gmail.com

1 Ankara Yildirim Beyazit University, Faculty of Health of Sciences, Turkey

2 Adana Numune Education and Research Hospital, Department of Radiation Oncology, Turkey

3 Department of Biostatistics, Faculty of Medicine, Erciyes University, Kayseri, Turkey

References

[1] Rowland J, Holland J. Breast Cancer Handbook of Psycho-Oncology. London: Oxford University Press; 1989

[2] Miedema B, Tatemichi S, MacDonald I. Cancer follow-up care in new brunswick: Cancer surveillance, support issues and fear of recurrence. Canadian Journal of Rural Medicine. 2004;**9**(2):101-107

[3] Ferrario SR, Zotti AM, Massara G, Nuvolne G. A comparative assessment of psychological and psychosocial characteristics of cancer patients and their caregivers. Psycho-Oncology. 2003;**12**:1-7

[4] Grunfeld E, Coyle D, Whelan T, Clinch J, Reyno L, Earle CC, et al. Family caregiver burden: Results of a longitudinal study of breast cancer patients and their principal caregivers. Canadian Medical Association. 2004;**170**:1795-1801

[5] Macaraeg JC, Türk Smith S. Psychological distress and help-seeking attitudes of cancer caregivers on Guam. Pacific Asia Inquiry. 2013;**4**(1):121-135

[6] Northouse L, Williams AL, Given B, McCorkle R. Psychosocial care for family caregivers of patients with cancer. Journal of Clinical Oncology. 2012 Apr 10;**30**(11):1227-1234

[7] Kim Y, Wellisch DK, Spillers RL, Crammer C. Psychological distress of female cancer caregivers: Effects of type of cancer and caregivers spiritualty. Support Care Cancer. 2007;**15**:1367-1374

[8] Northouse LL, Katapodi M, Song L, Zhang L, Mood DW. Interventions with family caregivers of cancer patients: Meta-analysis of randomized trials. CA: A Cancer Journal of Clinicians. 2010;**60**(5):317-339

[9] Hewitt M, Bamundo A, Day R, Harvey C. Perspectives on post-treatment cancer care: Qualitative research with survivors, nurses, and physicians. Journal of Clinical Oncology. 2007;**25**(16):2270-2273

[10] Horning S. Follow-up of adult cancer survivors: New paradigms for survivorship care planning. Hematology/Oncology Clinics of North America. 2008;**22**:201-210

[11] Ganz PA, Casillas J, Hahn EE. Ensuring quality of care for cancer survivors: Implementing the survivorship care plan. Seminars in Oncology Nursing. 2008;**24**(3):208-217

[12] Montgomery DA, Krupa K, Cooke TG. Alternative methods of follow up in breast cancer: A systematic review of the literature. British Medical Journal. 2007;**96**:1625-1632

[13] Çayan S, Akbay E, Bozlu M. The prevalance of female sexual dysfunction and potential risk factors that may impair sexual function in Turkish women. Urologia Internationalis. 2004;**72**(1):52-57

[14] Kuscu MK, Dural U, Onen P, Yasa Y, Yayla M, Basaran G, et al. The association between individual attachment patterns, the perceived social support, and the psychological well-being of Turkish informal caregivers. Psycho-Oncology. 2009;**18**:927-935

[15] Babaoğlu E, Öz F. The relationship between psychological and social problems of the spouses who cared for the terminal cancer patients. Journal of Nursing Research Development. 2003;**2**:24-33

[16] Berksun OE. Family factors in schizophrenia: Expressed emotion (EE): Scale development and adaptation trial [thesis]. Ankara: Ankara University Institute of Health Sciences; 1992

[17] Martín M, Salvadó I, Nadal S, Miji LC, Rico JM, Lanz P, et al. Adaptación para nuestro medio de la Escala de Sobrecarga del Cuidador (Caregiver Burden Interview) de Zarit. Reviews in Gerontology. 1996;**6**:338-346

[18] Lewis R, Neal R, Hendry M, France B, Williams N, Russell D, et al. Patients' and healthcare professionals' views of cancer follow-up: Systematic review. The British Journal of General Practice. 2009;**59**(564):248-259

[19] Ganz P, Hahn E. Implementing a survivorship care plan for patients with breast cancer. Journal of Clinical Oncology. 2008;**26**(5):759-767

[20] Montgomery DA, Krupa K, Wilson C, Cooke TG. Automated telephone follow-up after breast cancer: An acceptability and feasibility pilot study. British Medical Journal. 2008. **99**(5):704-710

[21] Cox K, Wilson E. Follow-up for people with cancer: Nurse-led services and telephone. Journal of Advanced Nursing. 2003;**43**(1):51-61

[22] Montgomery DA. Follow-up by telephone after treatment for breast cancer. British Medical Journal. 2009;**337**:2753

[23] Stajduhar KI, Martin WL, Barwich D, Fyles G. Factors influencing family caregivers' abilty to cope with providing end-of-life cancer care at home. Cancer Nursing. 2008;**31**:77-85

[24] Duric V, Butow P, Sharpe L, Lobb E, Meiser B, Barratt A, et al. Reducing psychological distress in a genetic counseling consultation for breast cancer. Journal of Genetic Counseling. 2003;**12**:243-264

[25] Ryhanen AM, Siekkinen M, Rankinen S, Korvenranta H, Leino-Kilpi H. The effects of Internet or interactive computer-based patient education in the field of breast cancer: A systematic literature review. Patient Education and Counseling. 2010;**79**:5-13

[26] McMillan SC, Small BJ, Weitzner M, Schonwetter R, Tittle M, Moody L, et al. İmpact of coping skills intervention with family caregivers of hospice patients with cancer: A randomized clinical trial. Cancer. 2006;**106**:214-222

[27] Akpan-Idiok PA, Anarado AN. Perceptions of burden of caregiving by informal caregivers of cancer patients attending University of Calabar Teaching Hospital, Calabar, Nigeria. The Pan African Medical Journal. 2014;**18**:159

[28] Turkoglu N, Kılıc D. Effects of care burdens of caregivers of cancer patients on their quality of life. Asian Pacific Journal of Cancer Prevention. 2012;**13**(8):4141-4145

[29] Lewis R, Neal RD, Williams NH, France B, Wilkinson C, Hendry M, et al. Nurse led-vs conventional physician-led follow up for patients with cancer: Systematic review. Journal of Advanced Nurse. 2009;**65**(4):706-723

[30] Muttitt S, Vigneault R, Loewen L. Integrating telehealth into aboriginal healthcare: The Canadian experience. International Journal of Circumpolar Health. 2004;**63**(4):401-414