

Relationship between Coping Strategies and Emotional Distress of Breast Cancer Patients and Their Care Takers in Radiation Oncology, SVIMS, Tirupati

C. Usha Kiran*, P. Sudharani**, Swapna***

*Ph.D Scholar in Nursing, **Professor, ***Assistant Professor, College of Nursing, Sri Venkateswara Institute of Medical Sciences (SVIMS), Alipiri Road, Tirupati-517507 Andhra Pradesh.

Abstract

Objective: To explore the relationship between coping strategies and emotional distress of breast cancer patients and their care takers. *Methodology:* The present study was descriptive correlational study. The data was collected from SVIMS radiation oncology unit in Tirupati during December 2015 to feb 2016. There were 60 participants including 30 breast cancer patients and 30 their care takers. The study sample comprises of breast cancer patients with inclusion criteria I, II and III stages of breast cancer who are attending to radiation oncology unit aged between 30-65 yrs, were selected and their care takers were also included in the study. Sample was selected by purposive sampling technique. Brief cope scale (carver 1991) and the distress thermometer with accompanying problem list were used for data collection. The data was interpreted through SPSS -20. *Results:* The study results revealed that 6 most frequently used coping strategies of patients with breast cancer were religion, use of instrumental support, use of emotional support, acceptance, positive reframing, planning where as 4 most frequently used coping strategies by care takers were positive reframing, planning, active coping, acceptance. Emotional distress of breast cancer patients and care takers results revealed that the total mean scores of breast cancer patients distress was 21.10(SD- 5.874) and their caretakers mean distress was 18.90(SD- 6.955). The results showed that patients had more emotional distress than their care takers. Coping strategies of patients with breast cancer namely acceptance, self distraction, active coping, positive reframing, venting, religion, humor, planning were related to their emotional distress. ($r=0.629, p<0.01, r=.588, p<0.01, r=.584, p<0.01, r=.538, p<0.01, r=.427, p<0.05, r=0.413, p<0.05, r=0.403, p<0.05, r=.385, p<0.05$). Coping strategies of care takers of breast cancer patients namely active coping, positive reframing, venting, acceptance were related to their emotional distress ($r=0.623, p<0.01, r=0.601, p<0.01, r=0.497, p<0.01, r=0.442, p<0.05$). *Conclusion:* The findings support the notion that some coping strategies are related to emotional distress both in breast cancer patients as well as their care takers.

Keywords: Breast cancer; Emotional distress.

Introduction

Cancer of the breast in women is a major health burden worldwide. It is the most common cause of cancer among women in high resource and low

resource settings [1]. According to globocan report it is estimate that 1.67 new cancer cases came to light in 2012(25% of all cancers) and 1.38 million new cancer cases detected in 2008. Approximately 883,000 and 794,000 new cases were estimated in the developed and more developed regions respectively in 2012. It shows the cases of breast cancer are more as comparative 2008 [2]. Incidence of breast cancer in India is one raise and is the second most common cause of death in females in southern India [3].

Cancer is the one of the top ten cases of death in

Reprint Request: C. Usha Kiran, Ph.D Scholar in Nursing, College of Nursing, Sri Venkateswara Institute of Medical Sciences (SVIMS), Alipiri Road, Tirupati-517507 Andhra Pradesh.

E-mail: uksekhar4ever@gmail.com

India, in 2012, 144,937 women were nearly diagnosed with breast cancer and 70218 died due to this fatal disease [4]. Patients undergoing treatment for cancer face more physical and emotional challenges [5]. Without question diagnosis of breast cancer not only impact on physical function of women, it also impact on her psychological functions. Breast cancer is often associated with pain, physical limitations and change the body appearance. It may interfere with the individual ability to perform activities in the work place, home and social area [6]. It has already been established that breast cancer as well as other life threatening diseases are often a cause for personal revolution and changes in life perspectives both in a positive and negative directions [7].

Diagnosis and treatment of breast cancer may make considerable emotional distress in patients and their caretakers. Feeling of anxiety and depression may be understandable reacting to the changes impact on the illness and treatment. However when high level of distress persist overtime they may become the focus of clinical concern [8]. Caregivers depression and perceived burden increases as patients functional status declines. Strategies are related to help to reduce the psychosocial, occupational and economic burden associated with caregivers [9].

Previous research studies focused on the coping strategies of breast cancer patients showed that the commonly used coping strategies by Chinese women were planning, positive reframing and self distraction [10]. Positive reappraisal and seeking social support are the most commonly used coping strategies by African American women with breast cancer [11].

Methodology

After ethical permission obtained from the institution the subjects were approached individually with permission of hospital authorities. The data was collected from breast cancer patients and their care takers attending to radiation oncology unit. The sample were selected by purposive sampling technique. After obtaining informed consent the data was collected and confidentiality of the subjects were maintained. In order to check the hypothesis appropriate statistical analysis was used by SPSS version 20.

Measures

Patient demographics- demographics of breast cancer patients includes age, religion, educational

level, occupation, family, income per month, residence, marital status, no of children, family history about cancer, type of treatment, stage of breast cancer, duration of disease, type of surgery, no of chemotherapy cycles, no of radiation tractions.

Demographics of care takers of breast cancer patients includes relationship with patient, religion, educational level, occupation, family income, marital status, residence and source of information.

Coping

coping responses were measured by a serious of items from the brief cope [carver 1997, carver et al 1989]. A theoretically based inventory that measure a range of coping reactions for each item respondents indicate the extent to which they experienced the response that the item describe during the period of time named in the instructions. Response choices are on a scale ranging from 1 [I haven't been doing this at all] to 4 [I have been doing this a lot]. One item was chosen for each category [The highest loading and most clearly written of the scale from which it was drawn].

The coping item represents 11 different responses acceptance, active coping, substance use, behavioral disengagement, denial, humor, planning, cognitive reframing, self distraction, use of religion and venting participants were to rate the extent to which each response was used in trying to deal with the full range of stresses associated with their diagnosis and treatment [12].

Distress Thermometer

In this study analyzing the emotional distress is done by utilizing a standardized tool called distress thermometer. Which is validated by international comprehensive cancer network [13]. The distress thermometer was used as a 1-item self report measures of emotional distress among breast cancer patients and their caretakers, were asked to rate their distress in the past week on an 11point visual analogue scale ranging from 0 (no distress) to 10 (extreme distress). After wards in the problem list patients are asked whether they have been experienced problems across 38-items covering 5 domains, i.e practical problems, family problems, emotional problems, spiritual problems, religious concerns and physical problems. For caregivers slightly modified distress thermometer scale (only related to physical problems) was used to assess the level of emotional distress. Distress thermometer scoring was 0-4 indicates no distress 5-7 indicates moderate distress, 8-10 indicates extreme distress. In

Table 1: Descriptive statistics and correlations for coping and emotional distress among breast cancer patients

	Mean	SD	Correlations		
			BCS	DT	DT with APL
Brief Coping Scale	73.03	9.445	-	-0.696**	-0.700**
Distress Thermometer	5.83	1.704	-0.696**	-	0.918**
Distress thermometer with accompanying problems list	21.10	5.874	-0.700**	0.918**	-

**Correlation is significant at 0.01 level

Table 2: Descriptive statistics and correlations for coping and emotional distress among caretakers of breast cancer patients

	Mean	SD	Correlations		
			BCS	DT	DT with APL
Brief Coping Scale	73.83	8.338	-	-0.533**	-0.576**
Distress Thermometer	5.63	1.829	-0.533**	-	0.919**
Distress thermometer with accompanying problems list	18.90	6.955	-0.576**	0.919**	-

**Correlation is significant at 0.01 level

BCS- Brief Coping Scale

DT-Distress Thermometer

DT with APL-Distress thermometer with accompanying problems list

Table 3: Correlation coefficient between the distress thermometer with accompanying problems list and domains of coping strategies among breast cancer patients

	Practical Problems	Family Problems	Emotional Problems	Spiritual/religious Concerns	Physical problems	Distress Thermometer Scale
Self-distraction	-0.327	-0.523**	-0.514**	-0.394*	-0.454*	-0.588**
Active coping	-0.234	-0.468**	-0.574**	-0.586**	-0.553**	-0.584**
Denial	-0.143	-0.420*	-0.304	-0.043	-0.158	-0.236
Substance use	-0.144	-0.172	-0.390*	0.145	-0.009	-0.219
Use of emotional support	-0.064	-0.246	-0.199	-0.319	-0.378*	-0.284
Use of instrumental support	0.057	-0.307	-0.031	-0.090	-0.356	-0.144
Behavioral disengagement	-0.178	-0.368*	-0.394*	-0.269	0.138	-0.077
Venting	-0.324	-0.253	-0.078	-0.196	-0.412*	-0.427*
Positive reframing	-0.151	-0.361*	-0.519**	-0.561**	-0.402*	-0.538**
Planning	-0.119	-0.291	-0.339	-0.150	-0.274	-0.385*
Humor	-0.035	-0.034	-0.061	-0.178	-0.484**	-0.403*
Acceptance	-0.441*	-0.611**	-0.476**	-0.350	-0.457*	-0.629**
Religion	-0.393*	-0.108	-0.136	-0.165	-0.303	-0.413*
Self-blame	-0.027	-0.124	0.041	0.206	-0.067	-0.080

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 4: Correlation coefficient between the distress thermometer with accompanying problems list and domains of coping strategies among caretakers of breast cancer patients.

	Practical Problems	Family Problems	Emotional Problems	Spiritual/religious Concerns	Physical problems	Distress Thermometer Scale
Self-distraction	-0.257	-0.213	-0.136	0.013	-0.348	-0.319
Active coping	-0.166	-0.260	-0.218	-0.306	-0.668**	-0.623**
Denial	-0.312	0.013	-0.002	0.252	-0.027	-0.039
Substance use	-0.108	0.054	0.004	0.090	0.330	0.158
Use of emotional support	-0.107	-0.071	0.019	-0.267	-0.156	-0.164
Use of instrumental support	-0.347	0.088	-0.021	0.125	-0.117	-0.067
Behavioral disengagement	0.027	-0.022	-0.192	0.239	0.146	0.170
Venting	-0.225	-0.318	-0.399*	-0.355	-0.437*	-0.497**
Positive reframing	-0.441*	-0.282	-0.274	-0.275	-0.627**	-0.601**
Planning	-0.134	-0.083	-0.190	-0.237	-0.251	-0.294
Humor	-0.019	-0.039	0.014	-0.198	-0.240	-0.142
Acceptance	-0.076	-0.095	-0.286	-0.368*	-0.553**	-0.442*
Religion	-0.151	-0.097	-0.367*	-0.145	-0.005	-0.221
Self-blame	0.022	-0.122	-0.209	0.398*	0.155	0.051

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

the accompanied problem list high score indicates extreme distress and low score indicates no distress.

The correlation coefficients between the coping strategies and emotional distress in breast cancer patients presented in Table 3. The results showed that Coping strategies of patients with breast cancer namely acceptance, self distraction, active coping, positive reframing, venting, religion, humor, planning were related to their emotional distress. ($r=0.629, p<0.01, r=.588, p<0.01, r=.584, p<0.01, r=.538, p<0.01, r=.427, p<0.05, r=0.413, p<0.05, r=0.403, p<0.05, r=.385, p<0.05$).

Table 4 Shows correlation between coping strategies and emotional distress among caretakers of breast cancer patients. The results showed that coping strategies among care takers of breast cancer patients namely active coping, positive reframing, venting, acceptance were related to their emotional distress ($r=0.623, p<0.01, r=0.601, p<0.01, r=0.497, p<0.01, r=0.442, p<0.05$).

The study results also revealed that there was significant association between no. of chemotherapy cycles and no. of radiation fractions with coping and emotional distress among breast cancer patients.

Discussion

Findings of the present study revealed that the patients with breast cancer and their caretakers used various coping strategies to cope with distress arising from the diagnosis and treatment of breast cancer. This findings are congruent with Lazarus and Folkman's that coping refers to feeling, thoughts and actions that people encounter during stress [14].

Most frequently used coping strategies by the breast cancer patients in the study were acceptance, planning, positive reframing this is consistent with the study of Narjes Khalili (2013) who found that religion, acceptance, self-distraction, planning, active coping, positive reframing and denial were the mostly used coping strategies by the Iran women with breast cancer¹⁵ where as caretakers of breast cancer patients most frequently used coping strategies in the study were, positive reframing, active coping, planning this is consistent with the study of Elanur Yılmaz Karabulutlu (2016) who found that active planning was the mostly used coping strategy by the caretakers of Turkey women with breast cancer [16].

Findings of the present study suggest that there is a correlation between coping strategies and emotional distress of breast cancer patients. That are

also consisted with previous research findings of significant correlation between coping and emotional distress [17]. The study also reveals that there is correlation between coping and emotional distress of caretakers of breast cancer patients.

Limitations

The size of the present study was not large enough to discover the purpose of the research while it was found that only 30 breast cancer patients and 30 their caretakers as was not fully delegate generalisability. The study was limited to I,II,III stages of breast cancer patients who are attending to radiation oncology unit and aged between 30-65 years. Data was taken both from patients and their caretakers who are attending to radiation oncology unit.

Implications

The findings of this study shows the significant correlation between few coping strategies and emotional distress of breast cancer patients and their caretakers. Nurses need to be aware of various coping strategies that patients and their caretakers use to confront the diagnosis of breast cancer. An assessment of coping strategies is a prerequisite to facilitate appropriate care for breast cancer patients and their caretakers. In addition the results of the study found emotional support was most common coping strategies used by the patients and their caretakers. The study may provide support for future studies that may not only replicate the results of present study that also make improved care with more resourceful thoughts on the subject matter.

References

1. Freddie Bray, Peter McCarron and Maxwell Parkin, the changing global patterns of female breast cancer incidence and mortality. *Breast Cancer Research*. 2004; 6: 229-239.
2. Ashutosh Kumar Dubey Umesh Gupta, Sonal Jain, Breast Cancer Statistics and Prediction Methodology: A Systematic Review and Analysis. *Asian Pacific Journal of Cancer Prevention*. Vol 16, 2015.
3. Samiya Abdul Saleem Khan, Mohd Ilyaz, K. Manasa Pharmacoepidemiological Trend and Drug Utilization Review of Breast Cancer at Three Different Tertiary Care Hospitals. *The Pharma Innovation Journal*. 2015; 4(8): 12-18.
4. Nirmal Singh, Tarvinder Singh Handa, Dhiraj Kumar and Gurpreet Singh Mapping of breast cancer

- research in India: a bibliometric analysis. *current science*. 2016 April 10; 110(1178): 7.
5. Saniah AR , Zinal NZ. Anxiety depression and coping strategies in breast cancer patients on chemo therapy. *MJP online early MJP* -02-08-10.
 6. Heather, MF and Scott, CR appraisal and Coping in people living with Cancer. A meta analysis. *Psycho Oncology*. 2006; 15: 1027-1037.
 7. Arman, M & Rehansfeldt, a living with breast cancer- a challenge to expensive and creative forces. *European journal of cancer care*. 2002; 10: 290-296.
 8. Teleghani, F. Yesta Z. P, Adjustment process in Iranian women with breast Cancer: *cancer nursing*. 2008; 31(03): 32-41.
 9. Eva Grunfeld, Doug Coyle, Timothy Whelan Jennifer clinch, Leonard Reyno, Craig C. Earle, Andrew willan, Raymond Viola, Narjorie C oristine, Teresa Janz, Robert Glosso, Family caregiver burden: results of a longitudinal study of breast cancer patients and the principal caregivers. *CMAJ*. 2004; 2: 170.
 10. Li, J and Lambert, V. A coping strategies and predictors of general well being in women with breast cancer in the people's Republic of China. *Nursing and health sciences*. 2009; 199-204.
 11. Phillis, D. Henderson, Joshua Fogel, Quannetta T. Edverd, coping strategies among African, American with breast cancer, *southern online journal of nursing research*. 2003; Vol.4.
 12. Jenifer L Culver Patricia L. Arena, Michael H. Antoni & Charles S. Carver, coping and distress among women under treatment for early stage of breast cancer: *psycho oncology*. 2002; 11: 495-504.
 13. Hamid Saeedi-Saedi, Soodabeh Shahidsales, Mona Koochk-Pour, Emad Sabahi, Irene Moridi, Evaluation of emotional distress in breast cancer patients, *Iranian journal of cancer prevention*. 2015; 8(1): 36-41.
 14. Lazurus R.S and Folkmans, S, *Text book of stress, appraisal and coping*, New York: springer, 1984.
 15. Narjes Khalili, Coping strategies, quality of life and pain in women with breast cancer, *Iranian Journal of Nursing and Midwifery Research*. 2013; 18(2).
 16. Karabulutlu EY. Coping with stress of family caregivers of cancer patients in Turkey. *Asia Pac J Oncol Nurs*. 2014; 1: 55-60.
 17. Treveno, K. M Maciejewsk, P.K, K. Fasciano, J. Greer, A. partridge, E.L. Kacel, S. Block & Prigerson, coping and psychological distress in young adults with advanced cancer : www.supportiveoncology.net: 10.
-