

The Effects of Social Support on Depression in Patients with Breast Cancer

Myo Youn Kim¹, Mi Joon Lee^{2*}, Sang Gwon Kang³

¹ Nurse, Kangbuk Samsung Hospital, Republic of Korea

² Manager, PhD, Health Strategy team, Kangbuk Samsung Hospital, Republic of Korea

³ CFO, PhD, Kangbuk Samsung Hospital, Republic of Korea
03181, 29 Saemunan-ro, Jongno-gu, Seoul, Korea
mijoon63@naver.com

Abstract. This study aims to understand the impact of social support on depression, perceived by breast cancer patients. This study is a descriptive correlation study attempted to provide with basic data for a nursing intervention program using a social support system to reduce breast cancer patients' depression. The subjects of this study were 75 persons who did not have another disease or cancer, of the patients who had been diagnosed with breast cancer and had surgery. Prior to the execution of the research, approval was obtained from the Medical Research Council. As for data analysis method, using SPSS statistical program, frequency, percentage, mean, standard deviation, Pearson correlation, t-test, ANOVA and simple linear regression were analyzed. There was a negative (-) correlation between breast cancer patients' depression and family support at $r=-.436$ ($p=.000$). In other words, this can be interpreted that the higher their family support, the lower their depression becomes. As a result of an analysis of depression and family support with a statistically significant difference by simple linear regression, family support is a significant predictive factor of breast cancer patients' depression, which can explain 19% of depression. This suggests that family support should be related to breast cancer patients' depression, so it may be considered an important variable in a developing nursing intervention program.

Keywords: Breast cancer, Stress, Depression, Social support

1 Introduction

As of 2012, breast cancer is the most common female cancer in 140 out of 184 countries, which takes up 25.2% of female cancers in the whole world, and it has the highest incidence rate of the female cancers [1]. In South Korea, it is the second common cancer following thyroid cancer, and according to the Annual Report on Cancer Statistics in Korea, breast cancer accounts for 15.4% of the whole female cancer as of 2010 [2].

* Corresponding Author

According to an international comparison of the five-year survival rate of breast cancer patients, the rate in South Korea was 91.3%, higher than that in the major advanced countries in medical care, 89.2% in the United States (2003-2009) and 88% in Canada (2006-2008) [3].

However, for people, cancer still causes severe stress to the extent that it means desperation, pain, agony, fear, and death. Breast cancer patients experience the loss of body organs, which are female symbols, and anxiety and depression in the treatment process in addition to the fear of cancer and fear for death [4]. Anxiety and depression are the major emotional reactions that hinder cancer patients from effectively responding to the disease and treatment [5], and the occurrence of depression in breast cancer patients was about 50% in the year of diagnosis, 25% after 2-4 years and about 15% after 5 years [6].

An appropriate social support plays a role in absorbing a shock in a stressful situation and helps people overcome frustration, by helping their psychological stability and adaptation. In other words, supports from a family member, friend, or medical team reduce cancer patients' depression and give them a new meaning of life [5].

Therefore, this study attempts to propose an effective measure of social support to reduce breast cancer patients, understanding the relationship between depression after breast cancer surgery and social support and analyzing the impact of each factor.

2. Method

2.1 Research Design

This study is a descriptive correlation study in order to check on the impact of social support on breast cancer patients' depression. In this process, advice was provided by two professors of Nursing Science, three clinical nurses, and one doctor. Prior to the execution of the research, approval was obtained from the Medical Research Council of K. Tertiary Hospital (IRB No: 2015-02-046).

2.2 Subjects

This study conducted convenience sampling with 75 persons who understood and accepted the research purpose among female patients without anamnesis other than breast cancer who got a breast reduction surgery at K. Tertiary Hospital located in Seoul. It was explained in advance that they might give up drawing up the questionnaire in the middle of it.

2.3 Research tool and Reliability

1) For depression, the tool in [7].who adopted the scale developed by [8]. In this study, its reliability was Cronbach's $\alpha=.815$.

2) Social support is divided broadly into three, and of them, for family support, the tool developed by [9] modified by [10] and supplemented by [11] was used. In this study, its reliability was Cronbach's $\alpha=.919$.

2.4 Data Collection and Analysis

The Data collection method was self-reported expression survey method the time taken for the data collection was about 15-20 min. The data collection period was from April 15 through to June 3, 2015. In order to collect a total of 75 copies, 93 copies were examined, and excluding 18 copies of the survey data with missing responses to the questions of the questionnaire and the data in which the respondents responded that they had not had anamnesis, but changed their response, 75 copies were used in the final data analysis (G-power: 3.1, Power: 0.95).

As for data analysis methods, using SPSS Version 21 Statistical Software, the frequency and percentage of breast cancer patients' characteristics were analyzed. The mean and standard deviation of the degrees of the breast cancer patients' depression and social support were compared. The correlation between the breast cancer patients' depression and social support was analyzed by Pearson correlation.

The differences between depression and social support, according to breast cancer patients' characteristics were analyzed by t-test and ANOVA. Predictive factors affecting breast cancer patients' depression were analyzed, using simple linear regression.

3 Result

As for the age distribution of this study, most of 42.7% of the subjects were over 60, followed by 50-53 years old (36.0%) and under 49 years old (21.3%). 76% currently had a spouse, while 24.0% did not have a spouse because they were unmarried, divorced, separated or bereaved, so most had a spouse. As for their religion, 72.0% of them 'had' a religion and 28% 'did not have' one. As for the current job, 76.0% did not have a job, followed by those with a job (16.0%) and those who took a leave of absence (8.0%).

The degree of breast cancer patients' depression ranged from 30 points to 68 points, and the average was 44.77 points. Of social support, the degree of family support ranged from 8 points to 40 points, and the average was 31.68 points. The degree of medical team support ranged from 18 points to 40 points, and the average was 30.97 points. Fellow patients' support ranged from 8 points to 40 points, and the average was 29.49 points.

In the result of correlation analysis between the breast cancer patients' depression and social support, the depression and medical team support, fellow patients' support did not show a statistically significant correlation, while depression and family support showed a negative (-) correlation at $r=-.436$ ($p=.000$).

4 Conclusion

To sum up the above results, this study found out that breast cancer patients' depression and family support are in a negative (-) correlation, in which the higher their family support, the lower their depression becomes, and 19% of their depression can be explained by their family support ($\beta = -.499$, $p < .001$).

This means that family support is an important predictive factor affecting breast cancer patient's depression. Thus, in order to decrease breast cancer patient's depression, it is necessary to make an effort by providing a holistic and integrated nursing intervention that can promote family support.

References

1. Korea Breast Cancer Society. http://www.kbcs.or.kr/journal/file/2014_02.pdf.
2. Korea Ministry of Health and Welfare Annual report of cancer statistics in Korea in 2010, http://www.mohw.go.kr/front_new/sch/index.jsp
3. Korea Ministry of Health and Welfare, http://www.mohw.go.kr/front_new/al/sal0301vw
4. Korea Breast Cancer Society: Breast guide book, vol. 2, pp. 86—93 (2011)
5. Kim, K.S., Yi, M.S., Bang, K.S., Cho, Y.A., Lee, J.L., Lee, E.: Relationships among Activity Status, Anxiety, Depression, Social Support, Symptom Experience, and Functional Status in Lung Cancer Patients based on the Theory of Unpleasant Symptoms. *Perspectives in Nursing Science*, vol. 10, no. 2, pp. 87--96 (2013)
6. Burgess, C., Cornelius, V., Love, S., Graham, J., Richard, M., Ramirez, A.: Depression and anxiety in women with early breast cancer: five year observational cohort study 2005. *BMJ*, vol. 330, pp.702--705 (2005)
7. Choi, H.Y.: The Effect of Music Therapy on Anxiety, Depression and Fatigue in Cancer Patients undergoing Intensity Modulated Radiotherapy. Unpublished master's thesis, Gacheon University, Incheon, (2013)
8. Jeon, Y.H.: Influence of Anxiety, Stress and Concern for Recurrence on Quality of Life, and Moderating Effect of Social Support among Cancer Patients. Unpublished master's thesis, Inje University, Pusan, (2010)
9. Tae, Y.S.: A Study on the Correlation between Perceived Social Support and Depression of the Cancer Patients. Unpublished master's thesis, Ewha Wolman's University, Seoul, (1986)
10. Kim, H.M.: A Study on the effects of Stroke Patients' Activities of Daily Living, Depression and Social Support for Them on Their Life Quality. Unpublished master's thesis, Hanyang University, Seoul, (2005)
11. Lee, J.A.: A Study on the Impact of Acceptance of Disability and Social Support on Rehabilitation Motivation in Stroke Patients. Unpublished master's thesis, Nambu University, Gwangju, (2012)