

Conference Paper

Depression, Anxiety, Stress and Perceived Social Support Among Breast Cancer Survivors in Tertiary Hospital in Malaysia

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Abstract

The emotional distress and psychosocial factors are links to worst quality of life among cancer patients as well as survivors. It gives negative impact to the survivors and their family. The objective of the study was to determine the correlation of depression, anxiety and stress with perceived social support among breast cancer survivors. This is a baseline finding of an educational intervention study. A total of 131 female breast cancer survivors were recruited while they went for their appointment at the Oncology clinic in one of the Tertiary Hospital in Kuala Lumpur. Baseline data was collected using the Depression, Anxiety and Stress (DASS) and Multidimensional Scale of Perceived Social Support (MSPSS) questionnaires. Descriptive analysis and correlation tests were used to determine the strength of a linear relationship between depression, anxiety and stress with perceived social support. The descriptive analysis showed that breast cancer survivors had a higher prevalence of anxiety (30.5%) as compared to depression (14.5%) and stress (12.2%). Perceived social support was higher among family support (96.2%) as compared to significant others (84.7%) and friend (71.8%). There was a fair negative correlation between: (i) depression and family support ($r = -0.372$, $p < 0.001$), and (ii) stress and family support ($r = -0.342$, $p < 0.001$). Other domains had a poor correlation ($r < 0.030$). The finding shows that social support from the family and significant others have a significant but fair inverse association with the emotional aspect (depression and stress) of breast cancer survivors.

Keywords: Correlation, DASS, MSPSS, breast cancer, Malaysia.

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1. INTRODUCTION

Breast cancers become the highest ranking compare to other type of cancer among women's cancer patient in Malaysia. The International Agency for Research in Cancer (GLOBOCAN) 2012 estimated the age-standardised rate (ASR) of breast cancer in Malaysia as 38.7 per 100,000 with 5410 new cases in 2012. Breast cancer survivors in this study refer to women breast cancer patients who are already past 6 months complete the surgery, chemotherapy and radiotherapy. A study of depression, anxiety and cancer related distress post-treatment for breast cancer for younger women and college education patients demonstrated greater distress [6].

Depression, anxiety and stress was varies from each other. The symptoms may include hopelessness, fatigue, physical and mentally pain. Depression makes it hard to function and enjoy life like before they did. People with anxiety feeling may have anxious symptoms that they are not so uncomfortable in daily life [12].

Social support from family provides patients with practical help and can buffer the burden of survivors. Social support is to maintain the individual by supporting the emotional aspect and adaptation to face stress and threats to health. The stresses of living with the fear of recurrence of the disease, they need high social support from family and friends (Miller 2013) [4].

2. METHODS

2.1. Study design and respondents

This study was carried out in Oncology and Radiotherapy clinic at one of the Tertiary Hospital in Kuala Lumpur, Malaysia. Breast cancer survivors were recruited from list name in their appointment follow up treatment list. The survivors were chosen based on inclusive criteria; understand Malay and English language, Malaysian citizenship, age from 18 to 70, diagnosed in stage I, II and III only and complete primary treatment; surgery, radiotherapy and chemotherapy at least past six months. While for the exclusion criteria we omitted those who are pregnant and breastfeeding, having chronic kidney diseases, mental disorder and rheumatoid arthritis. Written consent was obtained from survivors after the researcher telling the patient's information sheet. The simple random sampling using list name from the clinic appointment were applied to choose respondents.

2.2. Questionnaires

The questionnaire booklet was divided to five section; socio-demographic, medical report, social life, depression anxiety stress scale and perceived social support of respondents. The socio-demographic section included age, education level, household income, occupation and married or unmarried. Social life section asked about involvement to cancer support group and living with whom. Medical report section asked about stage of cancer, grade (aggressiveness) of cancer cell, year of diagnosed and type of treatment underwent. The Depression, Anxiety and Stress Scale (DASS) were used to assess symptoms of depression, anxiety, and stress using a 21-item questionnaire. Each item is rated on a 4-point Likert scale ranging from 0 (did not apply to me) to 3 (applied to me very much or most of the time). The Multidimensional Scale of Perceived Social Support (MSPSS) was used to assess the perceived social support using a 12-item questionnaire. Each item rated on a 7-point Likertscale ranging from 1 (Very Strongly Disagree) to 7 (Very Strongly Agree). The section was filled up by survivors themselves. They may ask explanation from the researchers that available in the clinic.

2.3. Statistical analysis

All analysis were done using IBM SPSS Statistics software version 23. The descriptive analysis and Pearson's correlation tests were used to determine the strength of a linear relationship between depression, anxiety and stress with perceived social support among breast cancer survivors.

3. RESULTS

3.1. Demographic background

The respondents consisted of 131 women breast cancer survivors who already completed the primary treatment; surgery, radiotherapy and chemotherapy at least for past six months at one centre of tertiary hospital in Malaysia. Most respondents were Malay; 65.6% compared to non-Malay (Table 1). While for the age distribution, 50 to 59 years old respondents covered almost 42.7% of the whole respondents. Meanwhile for working status, almost equal of the respondents were working (50.4%). Most

respondents had secondary education 54.2 % compare primary and tertiary education. Income status of the respondents was that majority in range Ringgit Malaysia (RM) 2999 and lower compared to higher income group; RM3000 to 5000, RM5001 and higher. Almost one third of the respondents (70.2 %) were married. The medical record shows among respondents are majority in stage II (50.4%), undergo for single mastectomy (48.9%) compared to lumpectomy and double mastectomy; receive radiotherapy (86.3%) and chemotherapy (79.4%), not involve with any cancer support group (71.8%) and take supplement in their diet (64.9%).

TABLE 1: Characteristic of Respondents (n=131).

	n	%
Age		
≤ 49	39	29.8
50 - 59	56	42.7
≥ 60	36	27.5
Race		
Malay	86	65.6
Non Malay	45	34.4
Education		
Primary	19	14.5
Secondary	71	54.2
Tertiary	41	31.3
Income (Malaysian Ringgit)		
≤ 2999	58	44.3
3000 - 5000	40	30.5
≥ 5000	33	25.2
Occupation		
Working	66	50.4
Housewife	65	49.6
Marital status		
Single	14	10.7
Married	92	70.2
Widowed	25	19.1
Cancer stage (previous diagnosed)		
I	37	28.2
II	66	50.4
III	28	21.4
Surgery		
Lumpectomy	62	47.3
Mastectomy	64	48.9
Double mastectomy	5	3.8
Radiotherapy		

	n	%
No	18	13.7
Yes	113	86.3
Chemotherapy		
No	27	20.6
Yes	104	79.4
Live with survivors		
Family	119	90.8
Relatives & alone	12	9.2
Involvement with cancer support group		
No	94	71.8
Yes	37	28.2
Supplement intake		
No	46	35.1
Yes	85	64.9

3.2. Depression, anxiety and stress scores among respondents

Table 2 showed that most respondents were in a normal level of depression (85.5%, n=112), anxiety (69.5%, n=91) and stress (87.8%, n=115). The mean level of depression was low (2.17± 2.94). While the means level of anxiety and stress were low too (2.76± 2.92, 3.37±3.62) respectively.

TABLE 2: Depression, anxiety and stress among survivors (n=131).

DASS		N	%	Mean	SD
Depression	Normal	112	85.5	2.17	2.94
	Mild-moderate	14	10.7		
	Severe-extremely severe	5	3.8		
Anxiety	Normal	91	69.5	2.76	2.92
	Mild-moderate	29	22.1		
	Severe-extremely severe	11	8.4		
Stress	Normal	115	87.8	3.37	3.62
	Mild-moderate	13	9.9		
	Severe-extremely severe	3	2.3		

Score: Depression= 5-10, Anxiety = 4-7, Stress = 8-12

3.3. Perceived social support among respondents

Most respondents perceived high social support from their family (96.2%, n=126), friends (71.8%, n = 94) and significant others (84.7%, n = 111). The means of family support (24.51) was higher than friends (18.85) and significant others (21.12). The score scale showed the respondent's perceived high social support from their family (6.13) and significant others (5.28). While the respondent's perceived moderate (4.71) social support from their friends. Total of MSPSS was high (5.37) among the respondents.

TABLE 3: Perceived social support among survivors (n=131).

MSPSS		n	%	Mean	Score scale	PSS
Family	Low	5	3.8	24.51	6.13	High
	High	126	96.2			
Friends	Low	37	28.2	18.85	4.71	Moderate
	High	94	71.8			
Significant other	Low	20	15.3	21.12	5.28	High
	high	111	84.7			
Total MSPSS				64.49	5.37	High
<i>PSS: Perceived social support, SO: Significant Others</i>						
<i>Score scale: family, friends and SO = mean/4, Total MSPSS = mean/12</i>						
<i>Cut off point: low support (1-2.9), moderate support (3-5), high support (5.1-7)</i>						
<i>Low = score 50% and below, High = score 51% and above</i>						

3.4. Depression, anxiety and stress with perceived social support score

The aim of this study was to identify the correlation between depression, anxiety and stress with perceived social support scores among respondents. Table 3 showed a significant ($p < 0.005$) association between depression and support from family ($p=0.000$), friend ($p=0.002$) and significant others ($p=0.003$). A significant ($p<0.005$) association was also between stress and support from family ($p=0.000$) and significant others ($p=0.001$). There was a fair negative correlation between depression and family support ($r = -0.372$, $p<0.001$), and stress and family support ($r = -0.342$, $p<0.001$). Other domains had a poor correlation ($r < 0.030$).

TABLE 4: Association between depression, anxiety and stress with family, friend and significant others.

DASS	PSS	r-value	p value
Depression	Family	-0.372	0.000*
	Friend	-0.273	0.002*
	Significant other	-0.257	0.003*
Anxiety	Family	-0.117	0.182
	Friend	-0.132	0.133
	Significant other	-0.127	0.149
Stress	Family	-0.342	0.000*
	Friend	-0.235	0.007
	Significant other	-0.287	0.001*

Significant value $p < 0.005$

Correlation score: 0=no relationship, ± 0.3 =fair, \pm =moderate, \pm strong (+ positive relationship, negative relationship)

4. DISCUSSION

This current study showed the prevalence of depression was 14.5%, anxiety was 30% and of stress was 12.2% among the breast cancer survivors. While the prevalence of depression was higher 22.0% and anxiety was 31.7% among breast cancer patients [8]. The prevalence of anxiety was similar (30% and 31.7%) for both studies, but the prevalence of depression was different (14.5% and 22.2%). The previous study used HADS questionnaire and the respondents were among breast cancer patients not survivors. The prevalences of depression and anxiety were higher among breast cancer patients compared to survivors that may be because of the breast cancer patients were still in the treatment at hospital. The treatment included surgery, chemotherapy and radiotherapy completely will give emotionally impact to them.

This study concurred with the study done among breast cancer patients of anxiety and depression which subscales scores of the subjects were relatively low (Ng 2015). Results of this study showed the level of anxiety reduced significantly at 6 and 12 months (Baseline 6 months, $p = 0.002$; Baseline 12 months, $p < 0.001$).

This group of breast cancer survivors had higher social support among their family and significant others. This study was supported by the study done by (Ng 2015) which were the mean scores of perceived social support of the subjects are relatively high. The mean score for the total scale is 71.50, significant others subscale is 24.53, family subscale is 24.90 and friends subscale is 22.08. Social support especially from family is very important to build up the emotional strength of survivors [3, 4, 10].

The association of depression, anxiety and stress with social support was negatively fair. The (i) depression and family support ($r = -0.372$, $p < 0.001$), and (ii) stress and family support ($r = -0.342$, $p < 0.001$). Result of this study was support by (Ng, 2015) which found that patients who perceived high social support were low in depression and anxiety. Survivors who manage to share their feeling and hope with their family and friend may reduce their fear of recurrence and anxiety about risk of dying (Miller 2013; [2]).

5. CONCLUSION

The finding shows that the total of perceived social support is high, and levels of depression, anxiety and stress are normal among respondents. It shows a significant ($p < 0.001$) but fair inverse association between family support and depression ($r, -0.372$) and stress ($r, -0.342$) among respondents.

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