

ORIGINAL ARTICLE

SPIRITUALITY AND MENTAL ADJUSTMENT AS COPING STRATEGIES AMONG WOMEN WITH BREAST CANCER

Raja Lexshimi RG¹, Mohd Fahmi E², Lee SC², Nor Suhana H², Norhazirah H², Sh Ezat A³,

¹ Department of Nursing, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre, 56000 Kuala Lumpur, Malaysia

² Department of Medicine, Universiti Kebangsaan Malaysia Medical Centre

³ Department of Public Health, Universiti Kebangsaan Malaysia Medical Centre,

ABSTRACT

Spirituality and mental adjustment have been widely adopted as coping strategies among women with breast cancer. Little information was available locally on the use of spirituality and mental adjustment as coping mechanisms to fight breast cancer. A cross-sectional study was conducted to assess spirituality and mental adjustment as coping strategies and its association with socio demographic data on 216 women with breast cancer. The Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being (FACIT-Sp) and Mental Adjustment to Cancer (MAC) Scales were used to assess spirituality and mental adjustment. Negative correlation between spiritual well-being and helplessness/hopelessness ($r=-0.690$; $p=0.000$), anxious preoccupation ($r=-0.277$; $p=0.000$) and avoidance ($r=-0.235$; $p=0.000$) and positive correlation between spiritual well-being and fighting spirit ($r=0.668$; $p=0.000$) were identified. Socio-demographic factors such as race ($p=0.000$), religion ($p=0.000$), academic qualification ($p=0.004$) and type of surgery ($p=0.016$) revealed significant relationship with spiritual well-being. Fighting spirit, hopelessness/helplessness and anxious preoccupation also yielded significant relationship with race ($p<0.0001$), religion ($p=0.001$) and academic qualification ($p=0.024$). Helplessness/hopelessness had a significant relationship with stage of disease ($p=0.017$) and type of surgery ($p=0.011$). Meanwhile, fatalistic and avoidance showed a strong relationship with age ($p=0.014$, $r=0.167$), occupation ($p=0.001$) and income ($p=0.006$), race ($p=0.007$) and academic qualification ($p=0.005$). It is thus, concluded that spirituality and mental adjustment are two coping strategies widely adopted by Malaysian women after a breast cancer diagnosis and throughout their breast cancer journey. Women with breast cancer, therefore, should be treated holistically rather than just the disease itself.

Keywords: breast cancer, spirituality, mental adjustment, coping, spiritual well-being.

INTRODUCTION

Breast cancer is a life-threatening disease among women with breast cancer. It is important to provide psychosocial support for these women for both physical and psychological problems, irrespective of age, ethnicity and disease trajectory. Apart from psychosocial support, patient's own level of spiritual well-being and mental adjustment had been identified to play an important role in coping with breast cancer¹.

Spirituality is defined as the inner feeling of a person or the meaning and purpose of his/her life, which can contribute to the physical and psychological well being of that individual². Spirituality is embedded in each individual's personal being and is commonly used as a coping strategy. It is referred to as a personal journey continuously searching for meaning,

purpose and answers in life². Spirituality not only inspires a person to be positive in outlook but also motivates to achieve one's general well-being². Numerous studies have deliberated on the role of spirituality in coping with the diagnosis of breast cancer and also its association with cancer outcome and prognosis³⁻⁴. Brady et al. (1999)⁵ stated that patients with high levels of spirituality well-being would experience high life enjoyment, despite having to fight chronic cancer symptoms. Studies done on African-American women had proven that spirituality plays a major role in facing the diagnosis of breast cancer⁶. The role of spirituality among African-American women of different stages of breast cancer was also studied. Findings revealed that during the time of diagnosis, spirituality had assisted the patients into accepting the diagnosis, guiding them in deciding the suitable treatment and also obtaining family

support. In the treatment phase, spirituality helped them cope with the effects of treatment. During the post-treatment phase, spirituality gave them the courage to live and struggle in their activities of daily living and reduced their fear for recurrence. It assisted them to cope with their challenges and side-effects of cancer and also helped them in managing the effects of long-term treatment⁷. The influence of spirituality on survival status was associated with gender, occupational status, type of cancer, stage of cancer,⁸ religion and marital status⁹. However, age, ethnicity and education level were not associated with spirituality as a coping strategy⁸⁻⁹.

Mental adjustment is another form of coping strategy popularly used by women in the diagnosis of breast cancer. Mental adjustment has been defined as cognitive and behavioral responses made by individuals to fight life-threatening diseases¹⁰. It is not only effective in influencing the prognosis of breast cancer but also disease progression and quality of life¹⁰. Spirituality and mental adjustment are known to vary among individuals across ethnic groups, and do have an impact on women's survival rate and satisfaction in life⁴.

Studies investigating the association of spirituality and mental adjustments with quality of life among breast cancer women of different ethnicity in the world are limited. Whitford et al. (2010)⁹ studied the effect of spirituality and coping styles towards the quality of life of breast cancer patients. It revealed that patients with higher spirituality had good quality of life and had adapted the positive adjustment style like fighting spirit. Helplessness/hopelessness, anxious preoccupation, fatalistic and avoidance were considered negative adjustment styles as they were negatively correlated with spirituality and quality of life. Cotton et al. (1999)⁴ identified similar findings,

with exception of fatalistic adjustment style as it had positive correlation with spirituality thus recognizing it as a positive adjustment style. Several other factors were identified to be associated with spirituality, mental adjustment style and patient outcome. Meanwhile, Inoue et al. (2003)¹¹ had studied the role of family function on predicting patients' mental adjustment styles post-operatively. Poor family function was related to high helplessness/hopelessness and low fighting spirit. There was also an association between age and educational level with mental adjustment towards the disease. Patients who were young and had a high educational level were found to have a low fighting spirit.

Few studies have examined spirituality with coping strategies, quality of life and psychological adjustment to cancer. However, the findings of these studies were not consistent as some had reported a positive relationship between spirituality and mental adjustment, whereas some did not¹². It is thus necessary to identify factors that are correlated with spirituality and mental adjustment, as it would assist women to cope with breast cancer. The objective of this study is to examine spirituality and mental adjustment as coping strategies of Malaysian women with breast cancer and their association with socio-demographic factors.

MATERIALS AND METHODS

Study design and sampling method

A cross-sectional study with a sample size of 336 breast cancer women were recruited from the Surgical and Oncology in and out patients of University Kebangsaan Malaysia Medical Center (UKMMC) using a convenience sampling method. Prior to their recruitment, patients were assessed based on the inclusion and exclusion criteria drawn for this study. Inclusion criteria were women

diagnosed with breast cancer and who received treatment in UKMMC. Exclusion criterias were patients with recurrent breast cancer and presence of other types of cancers. The patients were approached individually and an explanatory statement describing the purpose of the study was given. An informed consent was obtained prior to their recruitment. This research was approved by Research and Ethical Committee, Faculty of Medicine, University Kebangsaan Malaysia.

Study Instrument

The Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being (FACIT-Sp) and Mental Adjustment to Cancer (MAC) Scales were used to assess spirituality and mental adjustment of the women. Permission to use FACIT-Sp¹³ and MAC¹⁴ was obtained from the respective authors prior to the use of the questionnaires. These two chosen questionnaires were established questionnaires and widely used by researchers to examine spirituality and mental adjustment of an individual. FACIT-Sp consists of 2 domains which are meaning/peace and faith, while the MAC consists of 5 domains which are fighting spirit, helplessness/hopelessness, anxious preoccupation, fatalistic and avoidance. The FACIT-Sp instrument had an adequate validity and reliability testing with a cronbach alpha reading of 0.87¹³. The five domains in the MAC scale had strong reliability ranging from 0.65 to 0.88 respectively¹⁴. Questionnaires were made available in two widely used languages i.e. Malay and English. The instruments were translated into the Malay language by language experts and back translated to ensure that the authenticity of the original questionnaire is maintained. Each respondent was given 45-60 minutes to answer all the questions.

Data were analyzed by using SPSS version 18.0. Frequency and percentage counts were conducted for descriptive analyses.

Data was tested to be normally distributed and parametric tests were used. The relationship between spirituality and mental adjustment as well as correlation between age and duration were assessed by using the Pearson's correlation. Meanwhile, ANOVA test was used to reveal the association between spirituality and mental adjustment with other socio-demographic factors.

RESULTS

Participant Descriptive Characteristics

A total of 216 women with breast cancer agreed to participate in this study. One hundred and sixteen (53.7%) respondents were Malay, 83(38.4%) Chinese and 12(5.6%) Indian, thus representing the three major ethnic groups in Malaysia. Five (2.3%) respondents were from other races. The mean age of the respondents was 54.57 (\pm 11.00) years. Majority of the respondents (68.5%) were non-working women and mainly housewives. Almost 52.3% of the women received secondary school education. More than half of the total respondents were mostly Malay ethnicity and were Muslim (54.6%). Majority of the Chinese were Buddhist (33.8%) and Christian (6.0%). The Indians were all Hindu (5.6%). A total of 58.3% respondents had stage 1 and stage 2 breast cancers while 35.7% had stage 3 and stage 4 breast cancers. However, there were 6% respondents who were not aware of their cancer stage. Majority of the respondents (66.2%) had mastectomy done. As many as 65 respondents received chemotherapy alone, 34 respondents received hormonal therapy alone, 13 respondents received radiotherapy alone, 21 respondents received both chemotherapy and radiotherapy, and 83 respondents have completed all cancer treatments. Mean duration of the disease was 43.7 months (\pm 52.46 months).

Spirituality, mental adjustment and socio-demographic factors

The mean and standard deviation for the spiritual well-being and its subscales and subscales of mental adjustments are shown in Table 1. Pearson’s correlations were performed between spirituality and mental adjustment subscales with age and duration of disease. No significant relationship was found for duration of disease while age, to a small extent, affected certain adjustment domains, three (3) of which are anxious preoccupation (r=-0.264, p=0.000),

fatalistic (r=0.167, p=0.014) and avoidance (r=-0.195, p=0.004). On the whole, age did not significantly relate to spirituality (r=-0.070, p=0.914).) It was observed that those of the young age group appeared more preoccupied with anxiety and more avoidant than the older age group. However, between age and fatalistic, the older age group showed more fatalistic than the younger age group (Table 2).

Table 1 Mean and standard deviation for the FACIT-Sp and MAC subscales (n=216).

	<i>n</i>	Mean value	SD
Spiritual Well-being	216	39.40	7.89
Meaning/Peace Subscale	216	26.16	5.63
Faith Subscale	216	13.24	3.62
Fighting Spirit	216	53.19	6.88
Helplessness/Hopelessness	216	9.20	3.52
Anxious Preoccupation	216	24.03	4.10
Fatalistic	216	20.79	3.10
Avoidance	216	1.87	1.03

Table 2 Correlation between age, course of disease with spirituality and mental adjustment subscales (n=216).

	Age r (p)	Duration of disease r (p)
Spiritual Well-being	-0.070 (0.914)	0.16 (0.815)
Meaning/Peace subscale	0.057 (0.402)	0.037 (0.593)
Faith subscale	-0.106 (0.121)	-0.019 (0.781)
Fighting spirit	-0.026 (0.701)	-0.048 (0.480)
Helplessness/Hopelessness	0.062 (0.362)	0.050 (0.467)
Anxious Preoccupation	-0.264 (0.000)*	-0.096 (0.159)
Fatalistic	0.167 (0.014)*	0.027 (0.698)
Avoidance	-0.195 (0.004)*	-0.072 (0.294)

P<0.05

Table 3 shows level of spirituality between races, religions, occupations, education status, marital status, income, stage of cancer, types of surgery, treatment received and duration of disease. Using the ANOVA test, the study showed significant relationship between spirituality and race and religion and education level. Among races, Malay

women had the highest level of spirituality (42.11± 5.02) (p<0.000) and among religions, Christianity had the highest level of spirituality with mean (43.77 ± 4.11) (p<0.000). Women with high education had higher spirituality level (41.32 ± 4.89) (p=0.004) compared to women with secondary, primary and no

education. This study showed no significant relationship between spirituality and occupation, marital status, income, treatment, stage of the disease, age and course of disease. Among occupations, government servants and women working in private sector had the highest spirituality scores at 41.28 (± 4.91) when compared to housewives and women who were self-employed but was of no significant value ($p=0.110$). With regards

to marital status, single respondents had higher spirituality level than widows ($p=0.625$), while higher income was associated with high spirituality level ($p=0.208$). At the same time, results showed that women with no surgery had higher spirituality level (42.31 ± 3.93) ($p=0.016$) than those who underwent lumpectomy and mastectomy.

Table 3 Relationship between socio-demographic factors with spiritual well-being and its subscale (n=216).

Socio-demographic	Spiritual well-being		
	Total spiritual well-being	Meaning/ peace subscale	Faith subscale
Race	0.000*	0.053	0.000*
Religion	0.000*	0.001*	0.000*
Occupation	0.110	0.308	0.029*
Education level	0.004*	0.323	0.000*
Marital status	0.625	0.796	0.110
Total income	0.208	0.439	0.167
Stage of disease	0.378	0.361	0.233
Type of surgery	0.016*	0.065	0.028*
Treatment	0.407	0.377	0.537

P<0.05

Table 4 Relationship between socio-demographic factors with mental adjustment subscales (n=216).

Socio-demographic	Mental Adjustment				
	Fighting spirit	Helplessness/ Hopelessness	Anxious preoccupation	Fatalistic	Avoidance
Race	0.000*	0.022*	0.470	0.340	0.007*
Religion	0.000*	0.001*	0.360	0.461	0.208
Occupation	0.606	0.668	0.302	0.001*	0.496
Education level	0.003*	0.024*	0.089	0.089	0.005*
Marital status	0.526	0.587	0.060	0.710	0.095
Total income	0.421	0.136	0.726	0.006*	0.546
Stage of disease	0.238	0.017*	0.350	0.146	0.583
Type of surgery	0.138	0.011*	0.850	0.209	0.456
Treatment	0.915	0.896	0.745	0.713	0.592

P<0.05

Table 4 shows relationship between socio-demographic factors with mental adjustment, using the ANOVA test. The study demonstrated a significant

relationship between fighting spirit and race ($p<0.000$), religion ($p<0.000$) and academic qualification ($p=0.003$). Hopelessness/helplessness showed a

significant relationship with race ($p=0.000$), religion ($p=0.001$), academic qualification ($p=0.024$), stage of disease ($p=0.017$) and type of surgery ($p=0.011$). Anxious preoccupation had significant relationship only with age ($p<0.000$, $r=-0.264$) whereas fatalistic had significant relationship with age ($p=0.014$, $r=0.167$), occupation ($p=0.001$) and income ($p=0.006$). A significant relationship was also identified between avoidance and age ($p=0.004$, $r=-0.195$), race ($p=0.007$) and academic qualification ($p=0.005$).

Relationship between spirituality and mental adjustment

This study showed that spiritual wellbeing had moderate but significant correlation with fighting spirit ($r=0.668$; $p<0.000$), and

at the same time it showed negative correlation with anxious preoccupation and avoidance (Table 5). However, the correlation was weak as r values were -0.277 and -0.235 , respectively. There was no significant correlation between spiritual wellbeing and fatalistic. On examining the spiritual wellbeing subscales, meaning/peace showed significant association with all the subscales of adjustment styles compared to faith scores, which only showed a significant association with fighting spirit and helplessness/hopelessness. Meanwhile, spirituality showed moderate negative correlation with helplessness/hopelessness ($r=-0.690$; $p<0.000$).

Table 5 Correlation between spiritual well-being and mental adjustment subscales ($n=216$).

	Spiritual Well-being r (p)	Meaning/Peace subscale r (p)	Faith subscale r (p)
Fighting spirit	0.668 (0.000)*	0.567 (0.000)*	0.576 (0.000)*
Helplessness/Hopelessness	-0.690 (0.000)*	-0.684 (0.000)*	-0.443 (0.000)*
Anxious Preoccupation	-0.277 (0.000)*	-0.316 (0.000)*	-0.111 (0.105)
Fatalistic	-0.114 (0.095)	-0.206 (0.002)*	0.072 (0.293)
Avoidance	-0.235 (0.000)*	-0.339 (0.000)*	0.013 (0.846)

$P<0.05$

DISCUSSION

This study examined spirituality and mental adjustment as coping strategies and their association with socio-demographic factors of women with breast cancer. Spirituality affects all the subscales in mental adjustment except fatalistic subscale. Respondents with high spirituality have high fighting spirit and low helplessness/hopelessness. These results are consistent with several previous studies whereby spirituality

was often related to optimism or hope for recovery^{4,15}.

Meaning/peace, one of the domains in FACIT-Sp affected patient’s coping style more than faith. Faith had more effect on fighting spirit and helplessness/helplessness and did not significantly correlate with anxious preoccupation, fatalistic and avoidance. This is because faith is related to religion and that this religious aspect has no major role in anxious preoccupation, fatalistic and avoidance. Meaning/peace on the other hand had an important role in determining coping style of a patient compared with faith. Similar relationship was identified between spiritual wellbeing and psychological adjustment among women with breast cancer^{8,15,16,17}. Findings by Yanez et al. (2009)¹⁸ suggested that the ability to find meaning and peace

in life is a pivotal influencer to mental adjustment throughout breast cancer journey compared to faith, a religious aspect of spirituality.

Findings of this study showed that spirituality was not significantly correlated with fatalistic, contrary to the findings of Cotton et al. (1999)⁴. However, meaning/peace had significant negative correlation with fatalistic. This may be due to the fact that some of the respondents in this study were patients admitted to the hospital, therefore were willing to continue seeking treatment and had not given up the fight against breast cancer.

There are four most significant socio-demographic factors that affect spiritual well-being and they are race, religion, education level and types of surgery. There was a significant difference in spiritual well-being between the three races i.e Malay, Indian and Chinese. The Chinese has low faith when facing breast cancer but they have high meaning/peace or inner-self in fighting the breast cancer. A strong positive belief in fighting breast cancer was known to have strong association to one's meaning of life compared to one's religious faith¹⁰. For the Chinese, a strong positive belief in fighting cancer is more related to meaning in one's life than to one's religious faith. In this study most Chinese were Buddhist and Malay generally were Muslim. The Indian who were all Hindu were only a handful (5.6%) and thus made it difficult for the researcher to come to a conclusion on the role of faith on fighting spirit. However, the researcher believes that faith would have played a small role in influencing one's meaning in life and created a strong positive thinking on the women to fight breast cancer which is a life threatening disease.

Respondents who received formal education have a higher fighting spirit compared to others. This could possibly be

due to easy access to Internet facilities and wide exposure to media information. Assumptions could also be made that understanding of the disease process, maturity and their self-realization resulting from extra information gained would have motivated them to fight for the illness compared to those with low education. This is contrary to the findings of Inoue et al. (2003)¹¹ where respondents with a high educational level were found to have a low fighting spirit. With regards to occupation, even though it was found to be not significant, it is of importance to note that women working as government servants in the public sector had the highest spirituality level when compared to housewives and women who were self-employed.

Most interestingly, stage of cancer and age were not significantly associated with spirituality and is consistent with previous findings^{6,15}. However, Inoue et al. (2003)¹¹ revealed that young age people did have a low fighting spirit. On the other hand, age did affect some subscales of mental adjustments which were anxious preoccupation, fatalistic and avoidance. In his study, the mean age of respondents was 54.7 years and as high as 35.7% had stage 3 and 4 breast cancer. It is highly possible that the older age group and those with stage 3 and 4 had other means of coping with cancer besides spirituality.

Race, religion and educational level have significant effect on mental adjustment while occupation, income, stage of cancer and types of surgery did show less effect on mental adjustment. Occupation and income have less effect on mental adjustment probably because they could have had strong support from other aspects such as financial, physical, mental and social from family and relatives, community and hospital.

Surprisingly, types of surgery were found to have significant effect on spirituality, but it showed little effect towards mental

adjustment. This may be due to the fact that after lumpectomy or mastectomy, patients experience low self-esteem or fear of stigmatization from public. In addition, respondents in this study were all women, and they care about self-esteem, body image and other aesthetic aspects. This finding is supported by Quintard et al. (2008)¹⁹ where patients who received beauty treatment after mastectomy reported no effect of psychological distress.

Study limitations

The only limitation in this study is the small sample size among the Indian ethnic group, thus making it difficult for the researcher to make a concrete conclusion of the findings. In actual fact, the researcher failed to achieve the estimated sample size of 336 women due to time constraint. Moreover, many of the respondents approached had language difficulties as they could not understand both the Malay and English language and had to be excluded from the study. Future studies should consider such language difficulties and hire a translator or a research assistant who is well versed in these two languages.

CONCLUSION

Spirituality and mental adjustment are two coping strategies widely adopted by Malaysian women with breast cancer after a breast cancer diagnosis and throughout their breast cancer journey. A high spirituality level and a strong mental adjustment are found to have contributed to better coping strategies towards the disease thus improving the disease outcome. Spirituality and mental adjustment are therefore, highly recommended to be used as coping strategies for women with breast cancer. This is based on the belief that "spirituality" is a matter of the heart while "mental adjustment" is a matter of the mind and both could influence disease outcome. Women with breast cancer,

therefore, should be treated holistically rather than just the disease itself. Future studies should look into the association between spirituality, mental adjustment and quality of life among Malaysian women. By assessing all of these factors, it will provide health care professionals a better understanding of the effect of spirituality and mental adjustment towards the disease outcome.

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