

ORIGINAL ARTICLE

The Effect of Religiosity, Self-efficacy and Coping Mechanism on Quality of Life in Breast Cancer Patients

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ABSTRACT

Introduction: Quality of life in a country with a strong culture and religion, social, cultural, and religious factors play an essential role in the lives of women with breast cancer. The current study aimed to determine the relationship between religiosity, self-efficacy, and coping mechanisms on the quality of life of breast cancer patients. **Methods:** This research is a cross-sectional study; The population is breast cancer patients undergoing treatment in a hospital period 2020-2021 with a total sample of 130. Respondents answered a questionnaire including socio-demographic, The European Organization for Research and Treatment of Cancer Quality of Life Questionnaire–Core 30 Items (EORTC QLQ-C30), and the Breast Cancer Self-Efficacy Scale (BCSES), The Cancer Coping Questionnaire (CCQ), and The Duke University Religion Index (DUREL). Path analysis is a technique for determining the direct and indirect effects of independent variables on the dependent variable. **Results:** According to the final model resulting from the path analysis, Quality of life is directly influenced by religiosity ($b=0.345$, $p=0.000$), self-efficacy ($b=0.514$, $p=0.000$), coping mechanisms ($b=207$, $p=0.001$). Quality of life is influenced indirectly by religiosity through coping mechanisms and self-efficacy and coping mechanisms. Self-efficacy has an indirect effect on the quality of life through coping mechanisms. **Conclusion:** Higher levels of religiosity, self-efficacy, and coping mechanisms can all help to improve one's quality of life.

Keywords: Quality of life, Self-efficacy, Religiosity, Coping strategy

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INTRODUCTION

Breast cancer is one of the most common and deadly diseases in the world. 24.2 percent or one out of every four cancer cases in women globally are breast cancer cases. 15.0 percent of all cancer-related deaths in women occur as a result of breast cancer, with an annual death toll of 627,000 women (1). Indonesia has the highest incidence of breast cancer, with 42.1 incidences per 100,000 people. (2). Approximately 17 persons per 100,000 population die from this cancer (2).

Quality of life (QOL) is essential to medical and health research; it incorporates patients from various

demographics and utilizes different approaches (9). World Health Organization defines quality of life as an individual's appraisal of his or her life within established culture and norms, and is linked to aims, expectations and quality of treatment throughout one's lifetime (6). Breast cancer can have a significant impact on a patient's physical, psychological, social, and spiritual well-being. These four factors contribute to a low quality of life in breast cancer patients (3). Additionally, breast cancer affects the patient's quality of life due to the disease's mental and emotional burden, pain, social relationships, and treatment problems (4,5). In breast cancer patients, treatment has a major influence on quality of life due to numerous side effects (7). Because of the current healthcare system emphasis on patient-centered methods, it is possible to improve the quality of life for breast cancer survivors by being aware of the contributing elements that influence this (8,9).

People who believe they are capable of doing major things in their lives are known as self-efficacy (10). Patients diagnosed with breast cancer are aware of their situation, how well they feel about it, and how capable they improve their overall quality of life (11). The study found a link between a person's sense of self-efficacy and their overall well-being. A cancer patient's well-being improves when they feel more confidence in their ability to care for oneself. (11).

Quality of life is significantly related to coping mechanisms. Patients can develop false impressions about their diseases and treatment if they do not utilize effective ways to deal with illness, eventually affecting their medical outcomes (12). Previous research found that the coping mechanisms adopted by patients with advanced breast cancer contribute significantly to the quality of life (13). For persons with a life-threatening disease, religiosity can help them cope with stress and improve their mental health by boosting their psychological well-being (14,15). Seeking and believing in religion may be a cancer survivor strategy. Religion appears to be essential in the QOL of cancer survivors, and religious needs have a more significant impact on QOL (16).

Indonesia is a multi-cultural, religious, and socially diverse country. Women with breast cancer face various challenges in their lives, and elements such as self-efficacy, coping strategies, and religiosity play an essential role in determining their overall quality of life (7). There have been few studies in Indonesia looking at the effects of these three variables on the quality of life of women with breast cancer. The link between three essential facets of one's way of life and one's overall well-being may be helpful in improving the quality of life for those who have survived breast cancer. Study participants were breast cancer patients in Indonesia, and their quality of life was examined as a function of religion, self-efficacy, and coping techniques.

MATERIALS AND METHODS

Study design

This research is a cross-sectional design conducted at Sukabumi, West Java, Indonesia.

Sample

All breast cancer patients treated at Sukabumi Public Hospital between 2020 and 2021 are included in the study population. Patients with a confirmed diagnosis of breast cancer who are 18 years or older, willing to participate, and live with family are eligible for this study. A total of 130 women with breast cancer were enrolled in this trial.

Instrument

The European Organization for Research and Treatment of Cancer Quality of Life Questionnaire–Core 30 items (EORTC QLQ-C30) was used to assess QoL in this study. The Breast Cancer Survivor Self-Efficacy Scale (BCSES) was used to explore measure self-efficacy. The Cancer Coping Questionnaire (CCQ) was used to measure a coping strategy. Questionnaire on religiosity based on The Duke University Religion Index (DUREL).

Procedure

Following assessment and approval by the hospital's ethics committee, this research was allowed to proceed (No. 35/KEP-RS/RSUD/VII/2021). Participants in the study met with the researcher and gave their consent to participate in the study. Participants were asked a series of questions when the study begins to gather socio-demographic information, medical data on tumor stage at diagnosis and treatment, information on the participant's religiosity, self-efficacy, coping technique, and quality of life. The time to complete all questionnaires ranged from 15 to 20 minutes.

Data analysis

This study used descriptive and inferential statistics. The socio-demographic parameters of each responder were described using descriptive statistics. Percentage interpretation is provided for the frequency distribution of the data. Additionally to univariate analysis, descriptive analysis examines variables such as religious affiliation, belief in one's own abilities, coping mechanisms, and other aspects of one's own character. To examine the relationship between religion, self-efficacy, and coping methods, path analysis was performed.

RESULTS

The majority of respondents aged 41-60 years are 75 people (57.7%), 54 people have high school education (41.5%), married status is 118 people (90.8%), not working as many as 111 people (85.4%), long-suffering from cancer >1 year as many as 108 people (83.1%) (Table I).

The average value on religiosity is 24.30 (2.992), the average value on self-efficacy is 40.27 (6.372), the average value on the coping mechanism is 54.57 (9.983), and the average value on the quality of life is 74.52 (21.996) (Table II). Quality of life ($b=0.035$) and self-efficacy ($b=0.148$) are indirectly influenced by religion via coping mechanisms (0.027). (Table III).

Religion has a direct impact on life satisfaction

Table I : Demographic characteristics of women with breast cancer (n=13)

Characteristics	n	%
Age		
18-40	38	29,2
41-60	75	57,7
>60	17	13,1
Education		
Primary School	28	21,5
Junior High School	33	25,4
Senior High School	54	41,5
College	15	11,5
Marital Status		
Single	12	9,2
Married	118	90,8
Job Status		
Unemployed	111	85,4
Employed	19	14,6
Duration of breast cancer diagnosed		
<1 Year	22	16,9
>1 Year	108	83,1

Table II : Univariate analysis of research variables

Variable	Mean	SD	Minimum	Maximum
Religiosity	23.40	2.992	15	27
Self-efficacy	40.27	6.372	18	55
Coping mechanism	54.57	9.983	29	77
Quality of life	74.52	21.99	12	99

Table III : Direct effect, indirect effect and total effect of independent variables on quality of life of breast cancer patients

Variables	Direct Effect	p-Value	Indirect Effect	Total Effect
Religiosity	0.345	0.000	(0.168x0.207) +(0.289x0.514)	0.555
Self-efficacy	0.514	0.000	+(0.289x0.447x0.207)	0.606
Coping Mechanism	0.207	0.001	(0.447x0.207)	0.207

($b=0.345$, $p=0.000$), coping mechanisms ($b=0.168$, $p=0.036$) and self-efficacy ($r=0.289$, $p=0.001$). Self-efficacy also directly affects quality of life ($b=0.514$, $p=0.000$) and coping mechanisms ($b=0.447$, $p=0.000$). While, the coping mechanism directly affects the quality of life ($b=0.207$, $p=0.001$) (Figure 1). Religiosity has an indirect effect on quality of life through coping mechanisms ($b=0.035$), through self-efficacy ($b=0.148$), through self-efficacy and coping mechanisms (0.027). Religiosity has a direct effect on quality of life ($b=0.345$, $p=0.000$), coping mechanisms ($b=0.168$, $p=0.036$) and self-efficacy ($r=0.289$, $p=0.001$). Self-efficacy also directly affects quality of life ($b=0.514$, $p=0.000$) and coping mechanisms ($b=0.447$, $p=0.000$). while the coping mechanism directly affects the quality of life ($b=0.207$, $p=0.001$).

DISCUSSION

Research shows that breast cancer patients' quality of life is directly and indirectly affected by their level of religiosity. Research by Megawati (2016) shows that religion has a substantial impact on the quality of life of breast cancer patients (17). (17). However, this study led to more precise conclusions through path analysis and larger sample size. Matos et al. (2017) also show that religiosity affects cancer patients' quality of life. However, it differs from this study in that the research topic is more specialized, specifically breast cancer. (18). Research by Sadati et al. (2015) found that religiosity plays an important role in the interpretation and understanding of disease and that developing new concepts for life and death results in the development of a new meaningful system that improves the quality of life for women who have had breast cancer mastectomy surgery (19). Religion appears to have a larger role in cancer survivors' QOL, with religious needs exerting a more substantial influence on QOL (Eid et al., 2020). For breast cancer survivors, religion is a significant element affecting their quality of life, demonstrating that faith in God is the best tool for assisting them in coping with the overall impacts of breast cancer (20). Religion can help many cancer patients alleviate their suffering

and increase their hope for a better quality of life. Meanwhile, religiosity is the practice of using one's beliefs, religion, or spirituality to overcome psychological stress that occurs throughout life, thereby improving one's quality of life (18). Religiosity is closely related to reducing cancer symptoms such as depression, pain levels, cognitive impairment, and improving quality of life. It is possible that people's physical and mental health can be improved if they adhere to their religious beliefs (21).

Self-Efficacy is a necessity if you want to improve your life in general. There were both direct and indirect effects on breast cancer patients' quality of life, according to the results. Self-efficacy and quality of life were found to be linked in the study's findings. Increasing cancer patients' confidence in self-care has a beneficial effect on their quality of life during chemotherapy (22,23). People gain the ability to change self-management behaviors as their self-efficacy grows. Adults lack motivation to act unless they believe they can influence outcomes. Motivation, competence, perseverance, and effort are all affected by self-efficacy, which is required for symptom management behaviors (24,25).

In order to improve one's quality of life, coping techniques play an important role. The study's findings show that coping strategies have a direct impact on patients' overall well-being. Maleknia & Kahrazei's (2015) research demonstrates that the coping mechanisms adopted by patients with advanced breast cancer contribute significantly to the diversity in their quality of life (27). Cancer patients often experience many physical and emotional challenges while coping with their disease (28). Conditions and treatment for breast cancer patients will cause various symptoms. It has a negative impact on the patient's overall health and well-being, which can lead to a decrease in their overall standard of living. In order to improve the quality of life of breast cancer patients, they need to develop coping strategies (29). Coping mechanisms

are essential to solve problems, and effective coping will help individuals be free from prolonged stress. Coping mechanisms in breast cancer patients are critical in the disease's adaptation process. This is required for treating the side effects of chemotherapy as well as overcoming the physical and psychological issues that frequently arise in breast cancer patients, both short and long term (30).

Limitation

There are various limitations to our research. Because of its limited sample size, the study's findings might not be generalizable. Using brief, non-religion-specific questionnaires, we also looked at religious coping and religious beliefs. To be clear, this was a cross-sectional study that looked at two aspects of religiosity.

CONCLUSION

According to the findings of this study, religion improves the quality of life for breast cancer patients. According to our findings, it is vital to include religious practices in the treatment of cancer patients. Patients' religious faith can be used to assist them cope with the difficulties of acute therapy and recuperation, which can help them feel better emotionally.

ACKNOWLEDGEMENT

Thanks to STIKes Sukabumi and RSUD Sekarwangi for providing data on breast cancer patients, as well as for their encouragement and excitement throughout the research process.

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