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ORIGINAL RESEARCH

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## RELATIONSHIP BETWEEN DEMOGRAPHIC CHARACTERISTICS AND SPIRITUAL WELLBEING AMONG CANCER SURVIVORS

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### ABSTRACT

**Background:** Spiritual wellbeing (SWB) is an important quality-of-life dimension for cancer patients. Therefore, health professionals are demanded to improve SWB in these patients. A deeper understanding regarding the factors associated with SWB is needed.

**Objective:** This study aims to examine the relationships of demographic characteristics of patients and spiritual wellbeing in patients with cancer.

**Methods:** This was a cross-sectional correlational study with 60 respondents recruited using consecutive sampling. A spiritual wellbeing scale (SWBS) was used, and data were analyzed using Kendall's Tau and Spearman's rank.

**Results:** Findings in this study showed that only age was statistically significant with spiritual wellbeing of cancer patients with p-value 0.003 (<0.05). There were no significant relationships of gender, education, occupation, long suffering, and type of cancers with spiritual wellbeing with p-value >0.05.

**Conclusion:** There was a significant relationship between age and spiritual wellbeing in patients with cancer. This study provides the insight of knowledge regarding the factors affecting spiritual wellbeing in patients with cancer.

**Keywords:** demographic characteristics, spiritual wellbeing, cancer

### INTRODUCTION

Cancer is one of the main health problems feared for its ferocity. According to the International Agency for Research on Cancer (IARC), it is known that in 2012 there were 14,067,894 new cases of cancer and 8,201,575 deaths from cancer

worldwide.<sup>1</sup> In Indonesia, cancer is the third largest contributor to death after heart disease. The prevalence of cancer patients in the population of all ages in Indonesia is 1.4 % per thousand residents. The highest prevalence of cancer is in

Yogyakarta Province, which is 4.1 % per thousand of the population, followed by Central Java (2.1%) and Bali (2%).<sup>2</sup>

Cancer is a chronic disease that can affect every aspect of human life. Any types of treatment against this disease, especially in advanced cancer, can cause various physical, psychological, social, and spiritual problems.<sup>3</sup> However, this study focuses only on the spiritual distress of the patient.

Spiritual distress is a condition when individuals or groups are experiencing or at risk of impairment in beliefs or value systems that give it the strength, hope and meaning of life, which is characterized by the failure of the adaptation and non-fulfillment of spiritual needs.<sup>4</sup> The other characteristics include asking for spiritual help, revealing a doubt in the belief system and in the sense of life, revealing more attention to death and after life, making decisions, rejecting ritual activities, and having signs such as crying, withdrawing, anxiety and anger, then followed by physical signs such as impaired appetite, difficulty sleeping, and increased blood pressure.<sup>4</sup>

Preliminary study at the General hospital of Tugurejo Semarang was conducted with 4 cancer patients, indicated that they felt the disease is a punishment in life, being wasted and unnoticed. Four of them said they were reluctant to worship, desperate and physically exhausted. Some also expressed a desire to be cared by nurse. Therefore, health providers should pay attention with spiritual distress and improve the spiritual wellbeing in cancer patients.

Spiritual wellbeing is a condition in which a person have the ability to experience and integrate meaning and purpose in life through a person's connectedness with self, others, nature, or

a power greater than oneself.<sup>5</sup> Spiritual well-being is positively associated with life purpose, social support, lower distress, increased resistance to disease and effective in reducing physical and mental symptoms, pain, health problems, anxiety and depression. However, spiritual well-being in each individual is different because human is unique. Thus, broader understanding regarding the factors influencing spiritual well-being is needed.

Several factors identified in literature, such as culture and environment, family, religion, life experiences, characteristics and demographic factors.<sup>6-8</sup> However, in this study, only demographic factors and type of disease are examined with spiritual wellbeing in patients with cancer.

## METHODS

### *Design*

This was a cross-sectional correlational study to examine the relationship of individual demographic factor (age, gender, working status, education, long suffering), type of cancer, and spiritual wellbeing in cancer patients.

### *Population and sample*

The population of this study is patients with cancer in stage 3 and 4 at the General Hospital of Tugurejo Semarang between April and May 2017. There were 60 respondents selected using consecutive sampling. The inclusion criteria of this study were: 1) patients with cancer stage III and IV who were hospitalized, 2) compositional consciousness, 3) able to communicate verbally, 4) over 18 years old, 5) had no cognitive and mental disorders, and 6) were not in the influence of antidepressant drugs.

### *Instruments*

Instruments in this study were divided into two parts, namely 1) demographic characteristics questionnaire that included age, long suffering, education level, occupation and the type of cancer; and 2) a spiritual wellbeing scale (SWBS) was adopted from Ellison<sup>9</sup> and Imam et al instrument.<sup>10</sup> SWBS scale consists of 20 items of measurement with 2 sub-scales, namely vertical dimension (religion wellbeing (RWB)) and horizontal dimension (existence wellbeing (EWB)). RWB is to judge the relation of a person to God and EWB is to judge a person's relationship with people and the environment. Each sub-scale consists of 10 questions with Likert scale, ranging from 1(Strongly disagree) to 6 (Strongly agree). This score is summed to yield three value scales. SWB total scores can range from 20 to 120. Based on the scores obtained, the SWB scales are divided into 3 levels, namely low (20-40), moderate (41-99) and high (100-120). The reliability and validity of this instrument has been done in the previous study with valid and reliable result. This instrument

has been granted permission for use in this study.

### *Data analysis*

Mean and frequency distribution were described. Kendall's Tau and Spearman's rank were performed for data analysis.

### *Ethical consideration*

This study has been ethically approved by the Ethical Committee of the Faculty of Medicine, Diponegoro University with No. 89/EC/ FK-RSDK/III/2017. The investigators have confirmed that each respondent has an appropriate informed consent.

## **RESULTS**

### *Characteristic of respondents*

As shown in the Table 1, the average of respondents aged 41 years, with 35% of males and 65% of females. Majority of respondents were employed (68%) with bachelor level background (15%). Forty-two percent of respondents had breast cancers, and the rest of them suffered from other cancers.

**Table 1** Frequency distribution based on characteristics of respondents

Characteristics of Respondents	Mean	Min	Max	SD	Frequency	Percentage
Age (Year)	48	26	75	11.9	-	-
Long suffering (Month)	29	2	120	24.1	-	-
Gender	-	-	-	-		
Male					21	35
Female					39	65
Employment	-	-	-	-		
Unemployed					19	32
Employed					41	68
Education	-	-	-	-		
Bachelor					9	15
Non-bachelor					51	85
Type of cancer	-	-	-	-		
Breast cancer					25	42
Other cancers					35	58

### *Spiritual Wellbeing*

Table 2 shows that the majority of spiritual wellbeing of the respondents is in the moderate level (83.3 %). Only 15% of

respondents in a good level of spiritual wellbeing. However, the mean of spiritual wellbeing was 81.88% with standard deviation 13.30.

**Table 2** Spiritual wellbeing of the respondents

Spiritual wellbeing level	Number of respondents	Percentage (%)
Bad	1	1.6
Moderate	50	83.3
Good	9	15
Mean: 81.88% Min: 38.00 Max: 109 SD: 13.30		

**Table 3** The relationship of spiritual wellbeing and its related factors using Spearman Rank and Kendall's Tau test

Variables	P-value
Long suffering	0.956 <sup>a</sup>
Age	0.003 <sup>*a</sup>
Gender	0.739 <sup>b</sup>
Type of cancer	0.466 <sup>b</sup>
Educational level	0.548 <sup>b</sup>
Employment	0.128 <sup>b</sup>

<sup>a</sup>Spearman Rank <sup>b</sup>Kendall's Tau test \* $< 0.05$

Spearman rank test shows that age has significant relationship with spiritual wellbeing with p-value 0.003 ( $< 0.05$ ). However, there were no significant relationships of type of cancer, education, and employment with spiritual wellbeing based on the result of Kendall's tau test.

## DISCUSSION

Majority of the respondents in this study aged 41 years, which is in line with the previous study mentioned that there were 45.8% of patients experienced cancer in 1992-2006 at age 45-54 years,<sup>11</sup> while Musarezaie et al<sup>12</sup> also stated that the average age of cancer patients is 41.68 years or in the old adulthood.<sup>13,14</sup>

The most common gender was women, with the most cancer types are breast cancer followed by colorectal

cancer and lung cancer. It was estimated that in 2012 about 3.45 million new cases, and the first is breast cancer in women (464,000 cases),<sup>15</sup> followed by colorectal cancer, prostate cancer, and lung cancer. But Ferlay said that new cases were found more in men, which is about 1.4 million cases.<sup>15</sup>

Most of respondents suffered from cancer less than 3 years. It is because the patient comes at an advanced stage. Most respondents did not know the symptoms of cancer, how to detect, seek treatment and prevention. The high mortality of cancer patients is due to a lack of information about cancer, exposure to carcinogenic substances such as cigarettes and tobacco, and lifestyles that support the onset of cancer.<sup>15</sup> On the other hand, most of the respondents had high school educational background (non-bachelor).

Respondents with high levels of education will tend to be detected in the early stages of cancer. The higher the education level of a person, the easier it is for the person to absorb the information.<sup>16</sup>

Spiritual wellbeing (SWB) of most research subjects in the study was at moderate levels (83.3%). The results of this study are in accordance with the previous studies stated that SWB of most research subjects is at a moderate level.<sup>6,17,18</sup> However, this study revealed 1.6% of patients had bad level of spiritual wellbeing.

Findings of this research revealed that there was a significant correlation between age and spiritual wellbeing. This result is in line with Olver et al<sup>19</sup> study who indicated that there was a significant relationship between age and SWB. The older the patients, the better the spiritual wellbeing. But, this result is in contrast with the Kang et al<sup>20</sup> study who found no significant relationship between age and SWB in patients with cancer. Similar with the relationship of type of cancer and SWB. The finding of this study was in line with the previous study,<sup>12</sup> which the results showed no significant difference between SWB and cancer differences.

On the other hand, the other demographic data such as gender, education and occupation in this study were significantly unrelated to the spiritual wellbeing level of the respondents. This is consistent with the previous studies indicated that gender, education and occupation did not affect the well-being of patients with cancer.<sup>5,12,19</sup>

It could be said that findings on the relationship between demographic characteristics and SWB in cancer patients in this study have similarities and differences with the other studies. This may be caused by several factors, namely

differences in assessment tools, the number of samples, and the types of cancer respondents. Therefore, it is necessary to further assess the factors that cause differences from the spiritual wellbeing of patients with cancer.

## CONCLUSION

Based on the findings of this study, it is concluded that age statistically has significant relationship with spiritual wellbeing in patients with cancer. This study provides the insight of knowledge regarding the factors affecting spiritual wellbeing in patients with cancer.

## Declaration of Conflicting Interest

None declared

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## Author Contribution

All authors contributed equally in this study.

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