



The Relationship Between Spiritual Quality and Self-Adaptation in Cancer Patients Receiving Chemotherapy

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Abstract

Background/Aim: Previous research obtained information that chemotherapy patients need more spirituality than patients with other diseases because chemotherapy patients feel that their illness is difficult to heal and will last forever, until the end of their lives. The purpose of this study was to find a relationship between spiritual qualities and the self-acceptance of cancer patients receiving chemotherapy.

Methods: The study sample was 125 patients in chemotherapy. The investigative method used a correlation with a cross-sectional approach. The spiritual quality questionnaire was based on the spiritual well-being scale measurement technique which contained 3 components, namely spirituality and faith, emotional support and meaning in life. The instrument consisted of 20 multiple-choice questions with 6 Likert measurement scales. Data analysis used univariate and bivariate analysis. The significance level was set at $p < 0.05$.

Results: The results of the investigation showed that there was a significant positive relationship between spiritual quality and self-adaptation of respondents who were cancer patients who received chemotherapy in the Flamboyan Room of Balaidhika Husada Hospital Jember, Indonesia as evidenced by a significant $p < 0.01$.

Conclusion: This study showed positive correlation between spiritual quality and self-adaptation of cancer patients receiving chemotherapy. The results of this study can assist nurses in providing chemotherapy patient care through a spiritual approach.

Key words: Spiritual quality; Adaptation; Patients in chemotherapy.

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Introduction

Chemotherapy is a therapy that involves the use of chemicals or drugs that aim to kill cancer cells. Chemotherapy inhibits cell proliferation and tumour multiplication, thereby avoiding invasion and metastasis.^{1, 2} Unfortunately, this also produces a toxic effects of chemotherapy due to its effect on normal cells as well. Inhibition of tumour growth can occur at several levels within

the cell and its environment. A great number of studies and randomised clinical trials showed efficacy of chemotherapy in cancer treatment and chemotherapy has been part of evidence-based guidelines for cancer treatment for decades.^{2, 3} However, side effects of chemotherapy have been widely reported. A crude search of PubMed found that over 6000 publications on the side effects

and toxicity of chemotherapy have been written. One of the side effects of chemotherapy is neurotoxicity which can result in impaired well-being.^{1,2}

Research on the spirituality of cancer patients is questionable because most of the spirituality questionnaires contain several items that directly refer to emotional well-being.^{4,5} Research showed the effect of religiosity and spirituality on quality of life (QoL) varies between American and Korean survivors. The mediating effect of social support between spirituality and QoL for Korean Americans was also demonstrated to varies.⁶

The results showed that there was a positive and significant relationship between spirituality and quality of life in cancer patients undergoing chemotherapy.⁷ Moreover, positive and significant relationship was found between spiritual well-being and mental health in cancer patients undergoing chemotherapy.¹ Spirituality can improve mental health and QoL due to a sense of calm that is directed to the God, so that patients become more resigned and accept their condition.^{1,2}

Spirituality is a special and multidimensional part of human life experience and also one of the great forces in the search for the meaning of life. Spirituality becomes very important when individuals feel that their lives are threatened.⁸ The factors that cause different understandings of spirituality are also influenced by culture, development, life experience and self-perception. Positive spirituality can be used as a positive coping mechanism for the cancer healing process.⁹ Cancer diagnosis and treatment can lead to bad feelings or spiritual problems such as anger at God and feeling that their prayers have never been answered. The other problem is not being able to accept current situation and the fear of death. Low spirituality is associated with low quality of life.⁸ Research that has been conducted states that the level of spirituality can affect the condition of cancer patients, self-acceptance and good coping because individuals have positive spirituality such as assuming their greatest strength is God who is a source of strength for them. Cancer is one of the terminal illnesses, terminal illness requires a stronger spiritual to be able to accept the illness.¹⁰ The results of the research studies that researchers conducted received information that chemotherapy patients need more spirituality than patients with other

diseases because chemotherapy patients feel that their illness is difficult to heal and will last forever until the end of their lives. Patients feel more surrender to God about their condition in the future.

Research that has been conducted by Gall et al on the relationship between religiosity and spirituality in women with breast cancer have shown three main lines of study. The first line puts coping strategies in dealing with the disease. The main strategies women used to cope with, internalise and accept a cancer diagnosis and minimise the emotional impact on patient behaviour prioritising their views on the relationship with spiritual well-being during the treatment process identified that the quality of life of patients is directly correlated with coping strategies.¹¹ The second study block was driven by investigations between religiosity, spirituality, well-being and mental health. The concept of spiritual well-being was used to explore the notion of spiritual health, a concept developed to make explicit individual and socio-religious notions related to the body, health and disease. Observing the efficacy of psychosocial support on the well-being and quality of life of diagnosed women identified that social networks play a fundamental role in the social construction of illness and well-being,¹² demonstrating for their part the relationship that exists with sleep quality. And, third-line research discussed the quality of life from the religious and spiritual dimensions of women with breast cancer. The relationship between social support and quality of life by identifying success and failure factors in coping strategies used by breast cancer survivors are needed.¹³

The purpose of this study was to analyse relationship between spiritual qualities and the self-acceptance of cancer patients receiving chemotherapy.

Methods

This was cross-sectional study conducted at two cancer referral hospitals in East Java, Indonesia with sampling time from April 2018 to September 2019. The population in this study were all cancer patients undergoing chemotherapy at two cancer referral hospitals in East Java, Indonesia. The study sample consisted of cancer patients

undergoing chemotherapy at the chemotherapy unit (Flamboyan Room of Balaidhika Husada Hospital Jember, Indonesia), aged 17 years and over. On the other hand, patients who refused to be respondents and experienced worsening conditions were excluded from the study. Therefore, 125 patients were obtained through a consecutive sampling approach. Consecutive sampling is a sampling technique in which every subject meeting the criteria of inclusion is selected until the required sample size is achieved.¹⁴

Ethical consideration

The ethics committee of the institution where the research was conducted approved the research through ethical test No 0312/KEPK/FIKES/III/2018. Patients were informed about the study and asked for consent to participate. Each participant was given a research instrument with a questionnaire and written informed consent.

Data collection

The data collection instrument was a questionnaire consisting of demographic data and the Spiritual Well-Being Scale (SWBS) which contained 3 components, namely spirituality and faith, emotional support, meaning in life. There were 20 questions on the SWBS instrument with Likert measurements, namely score 6 strongly agree, score 5 quite agree, score 4 agree, 3 disagree, 2 quite disagree and score 1 strongly disagree.¹⁵ There were four main categories of questions:

1. Relationship with God
2. Relationship with yourself
3. Relationship with others
4. Relationship with nature

The self-acceptance questionnaire used the self-acceptance instrument adopted from the Unconditional Self-Acceptance Questionnaire (USAQ). It was used together with the basic info questionnaire referring to subjects' personal details: age, gender, study level adapted to the characteristics of the data and research subjects. USAQ instrument consisted of 32 items measuring eight indicators, namely: 1) accepting deficiencies, 2) acknowledging strengths, 3) loving the life you have, 4) not comparing yourself to other people, 5) doing something useful for other people, 6) optimism, 7) being able to overcome the consequences treatment, and 8) not blaming other people. Furthermore, the instrument used a 5-point Likert scale.

The results of the validity test of USAQ were

obtained in the range of $r = 0.388-0.718$ and the results of the reliability test used Cronbach Alpha 0.766, so questionnaire was reliable.¹⁶

Data analysis

Data analysis was performed using SPSS version 21 software. Descriptive statistics were performed and presented in tabular form to facilitate analysis. The distribution normality test was performed using the Kolmogorov-Smirnov test. For bivariate analysis paired t-test was used to assess the correlation between SWB and USAQ. The significance for all statistical tests was set at $p < 0.05$, unless stated otherwise. Data was entered and double-checked by the researcher. Files were stored and only accessed by researchers.

Results

Study analysed 125 patient receiving chemotherapy. Basic socio-demographic characteristics are shown in Table 1.

Table 1: Socio-demographic characteristics of 125 patients receiving chemotherapy

Variables	N	%
Religion		
Islam	125	100.0
Protestant	0	0.0
Catholic	0	0.0
Hindu	0	0.0
Budha	0	0.0
Kong Hu Cu	0	0.0
Sex		
Male	54	43.2
Female	71	56.8
Age		
25-29	9	7.2
30-34	13	10.4
35-39	26	20.8
> 40	77	61.6
Education		
No school	2	1.6
Elementary school	28	22.4
Junior high school	36	28.8
Senior high school	54	43.2
College/faculty	5	4.0
Total	125	100.0

All 125 participants were Muslim (100 %), most of them were women (58.8 %). Age was analysed into four categories and the result showed that the

patients over 40 years of age were dominant with 77 person (61.6 %). Most of the patient had senior high school education (43.2 %). Characteristics of patients analysing respondents' acceptance of illness, spiritual quality, marital status, daily activities length of chemotherapy and occupation is shown in Table 2.

Table 2: Analysis of patients characteristics related to patients acceptance of illness and spirituality and daily activities

Variables	N	%
Acceptance of illness		
Negative	0	0.0
Positive	125	100.0
Spiritual quality		
Low spiritual quality	0	0.0
Medium spiritual quality	69	55.2
High spiritual quality	56	44.8
Marital status		
Single	2	1.6
Married	97	77.6
Widow(er)	23	18.4
Divorced	3	2.4
Position in the family		
Head family	42	33.6
Housewife	67	53.6
Family member	16	12.8
Family support		
Little support	12	9.6
Enough support	6	4.8
Good support	107	85.6
Daily activities		
Reduced activity	16	12.8
Independently active	53	42.4
Limited and assisted activities	56	44.8
Length of chemotherapy		
< 1 year	71	56.8
> 1 year	54	43.2
Occupation		
Unemployed	47	37.6
Farmer	46	36.8
Government employees	3	2.4
Entrepreneurship	29	23.2

All patients had positive acceptance of illness 125 (100 %), medium spiritual quality had 69 respondents (55.2 %), 97 respondents were married, 67 respondents (53.6 %) were housewives. Good support from family members had 107 respondents (85.6 %), 56 respondents (44.8 %) were limited or needed assistance in everyday activities, 71 respondents (56.8 %) were less than one year in chemotherapy and 47 respondents were unemployed (47.6 %).

Table 3: The relationship of spiritual quality of patients in acceptance of chemotherapy

Parameter	Mean	SE	95 % CI		t	df	p-value
			Lower	Upper			
Spiritual quality - acceptance	-12.03	9.215	-13.7	-10.4	-14.60	124	< 0.001

SE: standard error; CI: confidence interval; df: degrees of freedom;

Table 3 shows the results of statistical tests which show that there was a significant relationship between spiritual quality and the acceptance of cancer patients who received chemotherapy in two cancer referral hospitals in East Java, Indonesia as evidenced by a significant p-value of < 0.001.

Discussion

This study aimed to assess the SWB of cancer patients receiving chemotherapy in the chemotherapy treatment unit. The results of the study provide an evidence of significant relationship between spiritual quality and the acceptance of respondents who were cancer patients who receive chemotherapy. Spirituality is a fundamental aspect that cannot be separated from human life.¹⁷ A person's spiritual ability can be influenced by maturity and age maturity as well as his/her ability to practice the religion he believes in. The results of this investigation are also relevant to research where the patients having high spiritual intelligence will have high self-efficacy and maturity.¹⁸ Patients with moderate spiritual quality can certainly regulate their emotions and thoughts about how they accept their situation. A person's spirituality is also a highest need as well as a basis in the formation of values, morals and self-esteem. The patient's with religious values are believed to be able to overcome the facing crisis.²⁴ If they believe that good or bad from what is human experience, must have valuable lessons and secrets or wisdom that can be known sooner or later, nothing is in vain. Regarding the overall SWB score, women had higher scores than men. In another study, also was found that women have better spiritual values.¹

Analysis of self-acceptance using the USAQ in patients with chemotherapy found that all patients (100 %) had a positive acceptance of the given chemotherapy. Hope and desire to recover are the main reasons for the patient. This is supported by the status of 77.6 % of patients who

still had partners which can be a motivation in undergoing chemotherapy. Good family support makes patients feel they are not alone in going through their illness. This is similar to other findings in research. Family support increased patient confidence in undergoing chemotherapy.²⁰

Spiritual quality is needed by patients, because the patient's spiritual quality influences the acceptance process in patients undergoing chemotherapy. Spiritual quality really supports the healing process, this is caused by a feeling of confidence in the healing that God has given them through chemotherapy.²¹ Spiritual is one aspect of human nature that is individual, it arises from within and comes from a different background for each individual. Positive spirituality can be used as a positive coping mechanism for the chemotherapy process, because the patient considers the greatest strength in himself to come from his God. This is in line with study before which mention that spirituality is predominantly seen as a fundamental aspect of

each individual human being, for funding their trust and confidence.²²

When a person has true spiritual intelligence he will have several abilities such as: (1) transcending something that is physical and material; (2) the highest level of awareness, so that he is able to give meaning to everything that befalls him; (3) he can sanctify everything he does including in everyday life, so that the essence of knowledge is obtained from what he does; (4) this person is able to use all his spiritual resources to solve every problem he faces; (5) that person can do various good things which benefits are not only felt by himself but also by others.²³ The purpose of human life in a spiritual perspective is to achieve a meaningful life and to be able to reassure the mind.²⁴ Therefore, religious spirituality is actually a basic human need towards self-acceptance.²⁵ In future studies larger samples should be considered and use of random sampling techniques, different contexts, settings, religious affiliation and ethnicity.

Conclusion

There is a significant relationship between spiritual quality and the acceptance of illness in respondents who were cancer patients receiving chemotherapy in two cancer referral hospitals in East Java, Indonesia as evidenced by a significant p-value of < 0.001. The results of this study can assist nurses in providing chemotherapy patient care through a spiritual approach.

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Conflict of interest

None.

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