RESEARCH ARTICLE

Influence of Religious Beliefs on the Health of Cancer Patients

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Abstract

Background: This study investigated the influence of religious beliefs on the health of cancer patients and identified the factors contributing to the influence. Materials and Methods: A questionnaire survey was conducted using a convenient sampling method. A structured questionnaire was used to the samplings, and the data of 200 cancer patients were collected. Results: The effects of religion on the health of cancer patients achieved an average score of 3.58. The top five effects are presented as follows: (a) Religion provides me with mental support and strength, (b) religion enables me to gain confidence in health recovery, (c) religion motivates me to cope with disease-related stress positively and optimistically, (d) religion helps me reduce anxiety, and (e) religion gives me courage to face uncertainties regarding disease progression. Moreover, among the demographic variables, gender, type of religion, and experience of religious miracles contributed to the significantly different effects of religion on patients. Specifically, the effect of religion on the health of patients who were female and Christian and had miracle experiences was significantly ($p< .01$) higher than that on other patients. Conclusions: These results are helpful in understanding the influence of religious beliefs on the health of cancer patients and identified the factors contributing to the influence. The result can serve as a reference for nursing education and clinical nursing practice.

Keywords: Religion - cancer patients - health

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Introduction

Cancer has been ranked first among the top 10 major causes of death worldwide as well as in Taiwan, and the incidence of cancer is increasing year by year. Cancer patients experience physiological pain and suffer from symptoms in mental, social, and spiritual aspects. The degree to which these symptoms afflict the patients increases as the disease progresses. The side effects of cancer treatment include depression, fatigue, and sleep disorders (Mohammed et al., 2009; Cantarero-Villanueva et al., 2011). Previous studies have indicated that the prevalence rate of depression among late-stage cancer patients was 15% and increased to 25% among patients at the late stage of certain cancer diseases (Henriksson et al., 1995; Bodurka-Bevers et al., 2000). In addition, the suicide rate among cancer patients is higher than that among other populations (Nasseri et al., 2012).

The physiological and mental distress and side effects during the cancer treatment process frequently prompt cancer patients to use complementary medicine to relieve symptoms and promote wellbeing (Molassiotis et al., 2005). Religiosity is critical to the health and quality of life of cancer patients (Puchalski, 2010; Caplan et al., 2014; Tuncay, 2014). Koenig (2012) found that hospitalized patients who were religious tended to cope with their diseases and receive treatment positively. Religion can help patients adapt to stress from diseases and improve their mental state, revealing its crucial influence on patients. Religion plays a critical role in the process through which individual patients confront diseases, enabling patients to find meaning in life or develop a sense of belonging. According to Koenig (2012), religion positively influences spiritual, emotional, and mental health. Religion can promote health because it inspires hope, encouragement, and positive thoughts in people. Through religious participation, people can understand the meaning and value of life and obtain abundant social support.

The topic of religion has been widely researched in the academic field, and more than 30 medical schools have incorporated religion into their courses (Levin, 1996). Regarding nursing education, numerous schools have incorporated religion into the ethics of nursing care and have asked nursing students to take religious courses. In particular, nurses are typically considered suitable for providing patients with spiritual care because they interact with patients most frequently. From personal clinical experiences, the researcher observed that numerous surgical patients prayed with other members of the faith

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in wards before and after surgery or their families prayed for them in temples, which can provide the patients with great strength and confidence and help them reduce anxiety before surgery. In the past decade, studies on religion in numerous countries have shown that religion positively influences the health of cancer patients. In Taiwan, however, scholars who have researched religion-related topics have primarily focused on the spiritual health of patients in hospice care. Furthermore, studies targeting cancer patients have mainly focused on patients' symptom distress, need for care, quality of life, pain, and the side effects of chemotherapy (e.g., nausea, vomiting, fatigue, and depression). The influence of religion on the health of cancer patients has rarely been investigated by Taiwanese scholars, which is the research motivation of this study. Therefore, this study investigated the influence of religion on cancer patients' health. The result can serve as a reference for medical teams caring for the physical, psychological, and spiritual health of patients.

Religion helps patients combat the feeling of helplessness and promotes health recovery with hope, confidence, and optimism. Numerous religions encourage social interaction. Adequate social support helps patients relieve stress, cope with and adapt to diseases, and live a healthy life. Therefore, religion can be regarded as a strong support for patients, profoundly influencing their spiritual and emotional states (Puchalski, 2010). National Institute of Health (NIH, 2012a) studies have shown that religious and spiritual values are essential to Americans. Most American adults have reported that they believe in God and that their religious beliefs affect how they live their lives. Many patients with cancer rely on spiritual or religious beliefs and practices to help them cope with their disease.

Carvalho et al (2014) evaluated the effect of prayer on anxiety in cancer patients undergoing chemotherapy. The intervention involved prayer and data collection. The results for the pre- and postintervention samples differed statistically significantly for anxiety ($p<0.00$), blood pressure ($p<0.00$), and respiratory rate ($p=0.04$). Prayer was an effective strategy for reducing the anxiety of patients undergoing chemotherapy. Boelens et al (2009) investigated the effect of direct contact person-to-person prayer on depression and anxiety. Individuals received person-to-person prayer contact. The result revealed that the depression and anxiety of participants who received the prayer intervention improved significantly. Participants in the prayer group preserved these significant improvements. Person-to-person prayer contact may be beneficial for the medical care of patients with depression and anxiety. In a systematic literature review, Hollywell and Walker (2009) identified the positive association between prayer and wellbeing, which is related to individual level of religiosity, church attendance, and use of prayer in areas that have strong Christian traditions. In addition, church participants, senior citizens, women, and people who are poor, under-educated, and have chronic health problems pray at a relatively high frequency. Devotional prayers are associated with improved optimism, wellbeing, and function.

Koenig (2012) examined 1,100 relevant studies published during the past 100 years and found that most people who engage in religious practices have satisfactory mental and physical health. In an opinion poll that targeted 1,000 American adults, 79% of the respondents contended that religious beliefs can help patients recover from diseases, and 63% of the respondents agreed that physicians should discuss religious beliefs with patients because religion can help patients face and cope with their diseases (Eisenberg et al., 1993).

Cancer is the disease that concerns people most and results from the lifestyle of people and environmental factors. In the United States, approximately 1.2 million people are diagnosed with cancer annually. Cancer poses great challenges to a person's life, body, emotions, and mind and controls a person's life. Cancer causes people to lose sensation and control and induces anxiety and fear. Cancer threatens the physiological and immune systems of patients and interferes with the normal functioning of the body, evoking negative emotions such as anxiety, fear, dread, and depression. During treatment, patients frequently experience fatigue, worry, anxiety, and insomnia, which severely affect the quality of life of patients and cause them to lose confidence and hope (Mohammed et al., 2009; Cantarero-Villanueva et al., 2011). The physiological and mental distress and side effects caused by cancer treatment frequently prompt cancer patients to use complementary medicine to relieve symptoms and promote wellbeing (Harper & Littlewood, 2005; Molassiotis et al., 2005; Ganz & Bower, 2007). However, medical personnel often neglect and fail to provide adequate nursing measures (Piper et al., 2008). According to the NIH (2012b), cancer patients frequently require spiritual or religious care to cope with the diseases and expect medical teams to provide them with support.

A study that targeted 1,337 cancer patients in the United States showed that religious beliefs enabled patients to maintain adequate spiritual, emotional, and physical health, thereby positively influencing their life quality. Because the patients could develop spiritual wellbeing and enjoy life, they maintained a strong will and controlled their quality of life when experiencing negative symptoms (Weaver & Fannelly, 2004).

Religious beliefs can help patients promote health and combat diseases, leading to a reduction in risks of chronic diseases, contagious diseases, depression, and anxiety (Puchalski, 2010; Dowshen, 2011). Religion is a crucial factor for improving mental health. When people have health problems, those who are religious can positively cope with diseases through hope and an optimistic attitude and can manage the treatment process and disability caused by the diseases (Koenig, 2012). Thus, religion is beneficial for a health recovery. For example, compared with patients with no religion, patients who are highly religious can get out of bed to walk at an earlier stage, which facilitates their functional recovery and further enables them to recover rapidly and be discharged from hospital earlier. Patients with religious beliefs have a high level of social interaction. The social support they receive is more than that received by those who have no religion, and they can easily maintain satisfactory physical function and health. From a social perspective, patients with religious

beliefs can obtain extensive social support and engage in a high level of social interaction, which motivate them to identify diseases at an early stage and to comply with treatment protocols. With numerous social resources and support, these patients can manage disease-induced stress. Therefore, religious beliefs affect the health of patients (Carvalho et al., 2014). Caplan et al. (2014) stated that aspects of religiosity are crucial to the health and quality of life of cancer patients. The present analysis examined changes in religiosity among community-dwelling cancer survivors. The result indicated that newly diagnosed participants were likely to reduce church attendance. A study examined the influence of breast cancer diagnosis on the religious and spiritual beliefs and practices of patients in the United Kingdom (Thune-Boyle et al., 2011). This study targeted 202 patients newly diagnosed with breast cancer and determined that the patients' belief in God and strength of faith significantly increased after surgery.

Overall, cancer influences patients in diverse aspects. In the physiological aspect, cancer treatment and complications lead to physical discomfort and distress. In the psychological aspect, the uncertainties involved in disease progression induce anxiety, depression, and fear, affecting the quality of life of patients. When the body and emotion of cancer patients are overwhelmed by the disease, they and their caregivers can derive strength from religious beliefs. Studies have shown that patients' religious practices and reliance on faith facilitate their effective adaptation to cancer. Briefly, the effects of religion on the health of patients involve providing spiritual comfort, relieving patients' feeling of guilt, accompanying them in progressing through the various stages of diseases, and enabling them to gain confidence and courage to cope with the illness.

Religion considerably affects cancer patients in mental and social aspects and their adaptation to treatment. Religion inspires hope in cancer patients and provides them, their families, and caregivers with an effective and active mechanism to manage the disease. Through religious faith, patients can accept their illness and attempt to cope with it actively and meaningfully. In addition, they can enjoy life because religion provides them with the idea and value regarding the meaning of life (Weaver & Fannelly, 2004).

Materials and Methods

Design

This study used a descriptive research design approach to the influence of religious beliefs on the health of cancer patients in Taiwan. A convenience sampling was used. A structured questionnaire was used to conduct face-to-face interviews with the participants. The five interviewers were nurses. Before executing the interviews, interviewers were trained.

Subjects

The study participants were recruited from cancer patients of two oncology wards or four surgical wards from a hospital in Taiwan. The inclusion criteria were (a) age greater than 20 years, (b) able to communicate in Chinese, (c) conscious clear, (d) have a religion. The research proposal was approved by the ethics committee of the Institutional Review Board (IRB). A total of 202 patients were interviewed based on the Gorsuch recommendation (Gorsuch, 1983).

Instruments

The participants were asked to complete the religious influence cancer patients' health situation scale as well as general demographic information. Most items of the questionnaire were obtained from the literature, and five cancer patients were interviewed to determine the effect of religion on their health. All the obtained data were analyzed and categorized to produce the scale of the influence of religion on cancer patients' health. The scale comprised five dimensions, namely religious practices,

Table 1. Demographic Characteristics of Cancer Patients (N=200)

Variables	N	%
Gender		
Women	84	42.0
Man	116	58.0
Age (years)		
≤50	58	29.0
51-60	66	33.0
>61	76	38.0
Education		
≤Senior high school	164	82.0
≥College and above	36	18.0
Marital Status		
Unmarried	30	15.0
Married	170	85.0
Employment Status		
Unemployed	126	63.0
Employed	74	37.0
Religion		
Buddhism	143	71.5
Folk religion	48	24.0
Christianity or catholic	9	4.5
Religious practices		
Praying to God and asking for divine advice in temples or churches.	73	36.14
Visiting temples or attending church for worship	188	93.07
Reading religious publications.	57	28.22
Watching or listening to religious programs.	31	15.35
Praying, meditating, or reciting sutras.	63	31.19
Donation.	40	19.80
The frequency of religious participation		
Every day	32	16.0
Every week	16	8.0
Every month	25	12.5
Every year	5	2.5
Seldom	122	61.0
The length of time a person has been practicing a religion (year)		
≤10 years	28	14.0
>10 years	172	86.0
religious miracles		
Have	50	25.0
No	150	75.0
Years since initial diagnosis (years)		
<6 months	102	51.0
7-12 months	25	12.5
1 year	73	36.5

frequency of religious participation, the time a patient began to practice a religion, length of time a person has practiced a religion, and religious experiences. We conducted a content validity assessment with professional experts. We invited five experts to complete professional-expert content validity review of the items by using a content validity index (CVI) (Lynn, 1986).

Demographic (e.g. age, gender, education, marital status, religious beliefs, employment status, namely religious practices, frequency of religious participation, the time a patient began to practice a religion, length of time a person has practiced a religion, and religious experiences and clinical information (e.g. years since initial diagnosis) were collected.

Religious influence cancer patients' health situation Scale

Twelve items are rated on a scale from 1 to 5 (1=strongly disagree, 2=disagree, 3=neither agree or disagree, 4=agree, 5=strongly agree) to evaluate the religious influence on the health situation of cancer patients. Total scores range from 12 to 60. The Cronbach's alpha of the religious influence cancer patients' health situation scale is 0.95. Higher scores indicate greater the impact on health.

Analysis

SPSS 20.0 (SPSS, Inc., Chicago, IL, USA) for Windows software analyzed data to decide demographic characteristic percentages, means, standard deviations (SD), percentage (%), t-test, and ANOVA.

Results

Demographic Characteristics, and religious influence cancer patients' health situation

A total of 200 patients voluntarily participated in this study and met the sampling criteria. The valid samples comprised 200 patients. Among the 200 participants, 116 were men (58.0%), 76 were aged older than 61 years (38.0%), 164 had an education degree of senior high school or below (82.0%), and 170 were married (85.0%). Moreover, 63.0% of the participants were unemployed.

Table 2. The Religious Influence on the Health Situation of Cancer Patients (N=200)

Variables	Mean	SD
Religion provides me with mental support and strength	3.88	0.75
Religion enables me to gain confidence in health recovery	3.77	0.80
Religion motivates me to cope with disease-related stress positively	3.76	0.83
Religion helps me reduce anxiety	3.75	0.82
Religion gives me courage to face uncertainties regarding disease progression	3.68	0.83
Religion helps me alleviate my fear of death.	3.55	0.89
Religion helps me maintain favorable social relationships and reduce the feeling of loneliness.	3.54	0.89
Religion helps me undergo treatment actively.	3.60	0.93
Religion helps me accept the fact of having cancer.	3.50	0.98
Religion helps me with receiving treatment that causes pain.	3.34	0.94
Religion helps alleviate treatment-induced discomfort and symptom distress.	3.28	0.96
Religious practices such as reciting sutras and praying can relieve my pain.	3.27	0.99
Total average	3.58	0.72

Table 3. Relevance of Demographic Characteristics and the Religious Influence on the Health Situation (N=200)

Variables		N	Mean	SD	t/F	*p*-value
Gender	Women	84	3.73	0.61	2.7	0.01
	Man	116	3.46	0.78		
Age (years)	58	3.61	0.73	0.78	0.46	
	51-60	66	3.49	0.66		
	>61	76	3.63	0.77		
education	≤Senior high school	158	3.53	0.72	-1.92	0.06
	≥College and above	36	3.78	0.71		
Marital Status	Unmarried	30	3.64	0.88	0.49	0.62
	Married	170	3.57	0.72		
Employment Status	Unemployed	126	3.61	0.71	0.94	0.35
	Employed	74	3.51	0.75		
Religion	Buddhism	143	3.57	0.7	3.49	0.03
	folk religion	48	3.5	0.77		
	Christianity or Catholic	9	4.18	0.65		
The religious influence on the health situation of cancer patients						
	≤10 years	28	3.8	0.72	1.78	0.08
	>10 years	172	3.54	0.72		
religious miracles	Yes	50	3.88	0.79	3.55	0
	No	150	3.47	0.67		
Years since initial	<6 months	102	3.56	0.71	0.4	0.67
diagnosis (years)	7-12 months	25	3.48	0.85		
	1 year	73	3.63	0.7		

Regarding religion, 71.5% of the participants were Buddhists (n=143), and 75% of the participants had no experiences regarding religious miracles. In addition, 51% of the participants had been diagnosed with cancer for 6 months or less before participating in this study (n=102) (Table 1).

The religious influence on the health situation of cancer patients

This religious influence on the health situation scale includes 12 items. According to the average scores for level of use. Religion provides me with mental support and strength (3.88±0.75), religion enables me to gain confidence in health recovery (3.77±0.80), religion motivates me to cope with disease-related stress positively and optimistically (3.76±0.83), religion helps me reduce anxiety (3.75±0.82), and religion gives me courage to face uncertainties regarding disease progression (3.68±0.83) are the top five effects are presented in our study. The mean of religious influence on the health situation was 3.58 (SD=0.72).

Among the demographic variables, gender, religion, and experience of religious miracles contributed to the significantly different effects of religion on patients. Specifically, the effect of religion on the health of patients who were female and Christian and had miracle experiences was significantly (p<0.01) higher than that on other patients.

Discussion

The result showed that the largest effect of religion on health was that it provided mental support and strength for patients. This result is consistent with that of Dowshen (2011) and the NIH (2012b). Moreover, similar to Weaver and Fannelly (2004), this study found that religious beliefs significantly influenced the mental and social adaptation of cancer patients to the disease and treatment. The result revealed that religious beliefs enabled cancer patients to gain confidence in health recovery, hold positive and optimistic attitudes toward the disease, courageously accept the fact of having cancer and face the uncertainties involved in the disease progression, and actively undergo treatment. This result is consistent with that obtained in Koenig et al (2001) and Weaver and Fannelly (2004), which have indicated that people with religious beliefs tend to have a healthy mind.

Regarding interpersonal relationship and social activities, this study verified that religious beliefs can help cancer patients maintain satisfactory social relationships and reduce the feeling of loneliness. Similarly, Al Zaben et al (2014) indicated that religious beliefs enable patients to obtain extensive social support, motivating them to comply with disease treatment and cope with stress.

When suffering from diseases, patients with religious beliefs tend to have a high level of expectation toward the intervention of professional religious people, and this expectation is most evident among Christians. This study determined that religion exerted a greater influence on the health of the Buddhists and Christians than on patients with other religions. In particular, the Christians tended to observe the religious norms in daily life. When these patients were hospitalized, priests or church members would visit and pray for them. Furthermore, the patients believed that they could recover from cancer through the prayers of others. In addition, church members frequently visited other patients. In the hospital where this study was conducted, church volunteers visited patients actively and supported and encouraged them, which affected their health. These results are consistent with Afrooz et al (2014) study who reported recovering from disease, controlling physical symptoms, and was ahead others' support.

This study found that religious participation stimulated a positive emotion in the cancer patients and contributed to their body relaxation and spiritual and mental comfort, thereby promoting their mental health. Thus, patients can cope with the disease actively, optimistically, and with hope and manage the treatment process. This result is consistent with that obtained in Koenig (2012), which has indicated that religious participation can promote mental health.

According to the findings, the influence of religion on the health of cancer patients differed significantly among the participants according to gender, religion, and miracle experiences. The influence of religion on the female participants was significantly greater than that on the male participants, which may be because the number of female believers is typically higher than that of male believers. Moreover, the influence of Christianity on health was significantly higher than that of Buddhism and folk religions. The influence of religion on the participants who experienced religious miracles was significantly larger than that on the participants who had no similar experiences. An explanation is that those who have miracle experiences, compared with those who do not, are more confident and persistent in their faith and do not cast doubt on it; therefore, they are influenced by religion to a higher extent. These findings have not been obtained or discussed in previous studies on the relationship between religion and health and are therefore the contributions of this study.

Similar to Molassiotis et al (2005), this study verified that the physiological and mental distress and side effects from cancer treatment frequently prompt cancer patients to regard religious practices as methods for relieving symptoms and promoting wellbeing. Through the support from religious beliefs and by participating in religious ceremonies, patients can achieve inner peace. This study determined that religious beliefs helped cancer patients reduce anxiety and the fear of death. In addition, Eisenberg et al (1993) showed that religious beliefs facilitated the recovery of patients from diseases and suggested that physicians discuss religious topics with patients. Both the current study and Eisenberg et al (1993) have indicated that cancer patients expect medical personnel to be concerned about and respect their religion and to discuss religious topics with them, showing that religion substantially contributes to the health of cancer patients and preparing them to face death. However, although the cancer patients recognized the positive influence and importance of religion, they generally reported that medical personnel in Taiwan do not have sufficient time

to discuss religion because of the inadequate medical environment that requires improvement.

In conclusion, the religious influence on the health situation of cancer patients. The top five items are: (a) religion provides me with mental support and strength, (b) religion enables me to gain confidence in health recovery, (c) religion motivates me to cope with disease-related stress positively and optimistically, (d) religion helps me reduce anxiety, and (e) religion gives me courage to face uncertainties regarding disease progression. The effect of religion on the health of patients who were female and Christian and had miracle experiences was significantly (p<.01) higher than that on other patients.

This study suggested that future studies focus on a single disease and comprehensively investigate the influence of religion on the health of patients with dissimilar diseases. In addition, this study was conducted in only one medical center; therefore, future studies can increase the number of samples for further investigation. Regarding clinical practice, current medical care typically focuses on the physiological symptoms of patients. Therefore, medical personnel should enhance their idea of religion as well as relevant assessments and should adequately discuss the influence of religion on health with patients and provide them with correct information.

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