



Original Article

Relationship between Oncology Nurses' Spiritual Wellbeing with Their Attitudes towards Spiritual Care Providing Based on Neuman System Model: Evidences from IRAN

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ABSTRACT

Introduction: Oncology nurses should create a balance in their personal and professional life to provide holistic care to patients. The more the awareness of spirituality in oncology nurses develops, the more obviously it manifests itself in their attitudes toward spiritual care. This study aimed to assess the relationship between oncology nurses' spiritual wellbeing, and their attitudes toward spiritual care based on Neumann's Systems Model.

Methods: This descriptive correlational study tested the relationships of Neuman system-based model constructs, named oncology nurses antecedents, their spiritual wellbeing, and attitudes to spiritual care by using a causal model and path analysis. 130 oncology nurses from 12 Tehran hospitals completed the study questionnaires, having completed written informed consents. The study administration permission was approved by Urmia University of medical sciences ethical committee. The collected data were coded and entered to computer to be analyzed by SPSS 13. We used path analysis and multiple regressions for assessing the relationships among the variables of the hypothesized study model.

Results: The model testing revealed, from four antecedents' predictors' variables, only age and spiritual wellbeing had a direct and meaningful relationship with oncology nurses' attitudes towards spiritual care. The nurses' antecedent and mediator variable, and spiritual wellbeing explained 32.5% of the variance in their attitudes towards spiritual care. Moreover, the nurses' spiritual wellbeing was found to have a positive relationship with their attitude to spiritual care ($\beta = 0.450$).

Conclusion: However, the study model and its constructs proved to be quite efficient in indicating oncology nurses' attitudes to spiritual care-related factors, but it is not a comprehensive model and other studies are required for its empirical testing.

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Introduction

Spirituality can be considered as the basis of human being and it forms his/her journey of life.¹ The human spiritual beliefs and practices are related to all aspects of health and disease, direct their life daily habits and are the source of support and improvement.² The spiritual domain of human being is one of the holistic approach aspects and is of special importance, very much like their bio-psycho-social components.^{3,4}

According to research evidence, paying attention to the spiritual aspect of caring can cause considerable differences on bio-psycho-social outcomes of a disease and an individual's participation in spiritual and religious rituals is related to better health outcomes, including decreased cardio vascular disease rate, depression and anxiety, drug abuse, suicide, as well as increased longevity and ability for better adaptation to a disease and improvement in life quality of.⁵

Nursing has a long history in providing spiritual care and nurses are pioneers in helping healthy people and patients to attain and preserve their bio-psycho-spiritual wellbeing. They also have an important role in creating a good situation for patients to adapt to chronic and end stage diseases or experience the death. Accordingly, there have been recent attempts to address and meet the

patients' spiritual needs. Most of nursing theorists such as Nightingale, Neuman, Watson, Travel bee, and Leninger have focused on assessing patients' spirituality and spiritual needs as one of the most important roles of nurses.^{6,7}

Nurses must create a balance in their personal and professional life to provide a holistic, safe, effective and vital nursing care and think about the effects of bio-psycho-socio-spiritual health on the quality of spiritual care, as well as having positive attitude toward it all. Then, it is also important for the nurses to have the required energy in order to address cancer patients' spiritual wellbeing and their spiritual needs. Moreover, it is necessary for them to specify their own spirituality at first.

They must also have a commitment to considering people's health needs through a holistic approach, including spiritual issues. In order to attain this goal, the knowledge and attitude of nurses are very important.⁸ Attitude is the most important tendency of a person's behavior. The determining factor of a person's attitude is his/her beliefs toward that particular behavior.⁹ If we could offer a precise definition of attitude and behavior and they were measurable, the attitude, then, could predict that behavior.¹⁰ Knowledge is the integral part of attitude formation and a negative attitude toward a certain

behavior would cause a person to refrain from that behavior.¹¹

There is plenty of research about the vital role of nurses' attitude in predicting the patients' needs and developing spiritual care. The studies suggest that the more nurses believe in the importance of spiritual care, the more likely they would be to assess the patients' spiritual and religious beliefs and to develop spiritual care plans, accordingly.¹² In Grant's study about the effect of spirituality and spiritual therapies, 299 nurses believed that the spirituality gave the patients' inner peace, adaptation and self-awareness.¹³ Strunam and Taylor found a positive relationship between the nurses' perception of spirituality and their attitudes toward providing spiritual care.^{14,15}

Since the diagnosis of cancer stimulates patients to search for the purpose and meaning of their life, nurses who provide care to those must be aware of their own spirituality and be prepared for the provision of spiritual care for them.¹⁶ The concept of spirituality has a crucial role in cancer patients and oncology nurses and focus on holistic nursing. Therefore, searching for variables such as spiritual wellbeing that influence the prediction of spiritual care, is very important. If nurses acquire efficient knowledge and a positive attitude about spiritual care, they can assess the patients' spiritual needs better and will thus try to meet them more efficiently.¹⁷

Moreover, since attitude toward spiritual care is one of the most important indices for predicting the nurses' behavior in dealing with patients, it is necessary to assess the influencing factors on nurses' attitude toward spiritual care based on a valid model.

There is a limited number of studies on oncology nurses' antecedent variables and their spiritual wellbeing and their relationship to attitude toward spiritual care in Iran in the world, in general. Also, cancer prevalence and its incidence have been reported to have an increasing trend in recent decades in Iran, with cancer patients' spiritual needs being highlighted so that they could be recognized and dealt with. Therefore, oncology nurses need new native empirical models that guide their practice and help them promote their quality of care especially in oncology nursing arena. The aim of this study was to determine the relationship between oncology nurses' spiritual wellbeing and their attitude toward spiritual care based on Neuman system model.

Materials and methods

In this study, a descripto- correlational design was used to test the relationships among variables or model constructs and then those relationships were assessed through using a causal model and path analysis approach. The study variables were selected based on Neuman system model and review of literature about the attitudes toward spiritual care and its relevant variables. The nurses' antecedents such as age, work history and educational level were extrinsic variables and spiritual wellbeing as a mediator was the independent variable and the attitude toward spiritual care was considered the outcome variable.

Firstly, the study model was conceptualized according to specific criteria through using Neuman system model. Secondly, the model was tested through a cross sectional design with 130 oncology nurses. The participants signed informed consent forms and then completed 3 questionnaires, including "nurses' personal profile", "oncology nurses' spiritual wellbeing scale" and "oncology nurses' spiritual care attitudes scale".

Oncology nurses spiritual wellbeing scale and Oncology nurses' spiritual care attitudes scale were developed and were validated in Shahid Beheshti University of medical sciences by Khorami Markani *et al.*¹⁷ They used an expert panel consisting of 20 scientific members from Shahid Beheshti, Iran, and Tehran universities of medical sciences, experts in spirituality, religion and theology, psychology and instrument development fields for developing and validating processes. The construct validity of the scales was determined by factor analysis and their criterion validities were determined by using Palouzian & Ellison spiritual wellbeing scale,¹⁸ and Tylor *et al.*, spiritual care perspective scale¹⁹ as criterion scales, respectively. Correlation coefficients of these scales were calculated as 0.68 and 0.76, respectively. The scale developers used internal consistency reliability, through calculating alpha chronbach coefficient that were 0.84 and 0.90 and used test retest reliability with correlation coefficients at 0.66 and 0.73, respectively.

The oncology spiritual wellbeing scale has 5 domains, consisting of religious beliefs, belief in God, life satisfaction, accepting of self and others and spiritual behaviors. These 67 items tool had a 6 points Likert scoring scale from "completely disagree" (zero) to completely agree.¹⁷ The nurses' attitudes to spiritual care providing scale had 58 items with three domains consisting of "knowledge", "emotion" and "subjective performance" that had 6 points Likert scoring scale from "completely disagree" (zero) to completely agree.²⁰

The study population was made up of all oncology nurses working in oncology hospitals affiliated to Shahid Beheshti, Tehran and Iran medical sciences universities. The sample comprised 130 oncology nurses from 12 hospitals, who were selected by census method. The inclusion criteria included being a Muslim oncology nurse, having at least 1 year's working experience, a willingness to participate in the study and an interest in stating their own spiritual experiences. The study model's constructs were measured by oncology nurses' spiritual wellbeing scale and oncology nurses attitudes toward spiritual care. Then, the theoretical relationships among model constructs were tested in a descripto- correlational design by path analysis procedure. Before initiating the study, the agreement of Urmia University of medical sciences ethical committee was gained. The collected data were coded and were entered to computer and were analyzed by SPSS 13. We used path analysis procedure and multiple regressions for assessing the hypothesized study model's variables' relationships.

Results

Most of the participants (5.91%) had a mean age of 33 (9)

years with a range of 22-63 years. 9.76% of them were baccalaureate nurse, 33.8% were employed and 55.4% were married. Sixty three and one tenth of a percent from the nurses had 1-10 years nursing work history and 89.2% of them had 1-10 years oncology nursing history. Most of the participants (49.2%) were satisfied with their own economic status and 67.7% of them belonged to middle classes. Moreover 50% of nurses had good physical health status, 42.3% good psychological health status, 60% good social health status and 50% of them had good spiritual health status. Meanwhile, most of the participants (78.5%) reported that they had done spiritual care and 46.2% of them had occasionally provided spiritual care. 94.6% of the nurses had not passed any educational courses about spiritual care and 63.8% of them stated that doing scientific and rational spiritual care calls for taking up the related academic education.

According to the results of model testing, out of the four nurses' antecedents' predictor variables, such as age, nursing work history, oncology nursing work history and spiritual wellbeing, only nurses' age and their spiritual wellbeing had a direct and meaningful relationship with their attitudes towards spiritual care. As seen in table (1)

Table 1. Regression model of correlations among nurses antecedent and spiritual wellbeing with their attitudes to spiritual care

Estimation of SE	Modified R ²		
18.578	0.352	0.351	0.592a

^a. Model predictors: spiritual wellbeing, age, work history, years of oncology services

because significance level (P- value) is less than 0.05, it indicates that there is a correlation between independent and dependent variables. It means that independents variables such as the nurses' age, work history, years of oncology services and spiritual wellbeing can predict dependent variable attitude to spiritual care. Nurses' antecedent and mediator variable spiritual wellbeing explained 32.5% of oncology nurses' attitudes towards spiritual care (Table 1, 2, 3). As you see in table 3, the significance level of spiritual wellbeing is less than 0.05. It indicates that spiritual wellbeing has a relationship with attitude to spiritual care and this relationship is positive with $\beta=0.450$.

According to the model testing results none of the factors such as age, working as an oncology nurse, and working as a general nurse had any relationship with their spiritual wellbeing. As for the other qualitative factors, only financial status, social class, physical, mental and spiritual health had a significant relationship to bear with oncology nurses' spiritual wellbeing. You can see details in table 4. None of antecedent factors had any meaningful relationship with nurses' spiritual wellbeing. Only nurses' age had a positive and meaningful relationship with their attitude towards spiritual care (Table 4). The relationships among oncology nurses' antecedents and their attitude towards spiritual care is shown in table 5. As you see from antecedent factors, there is a significant relationship only among nurses' age, marital status, social health, spiritual health and their attitude to spiritual care, see figure 1. As you see in figure 1 nurses' spiritual wellbeing also had a direct, positive and meaningful relationship with their

attitude towards spiritual care. The most important finding of this study was the most direct relationship of the nurses' spiritual wellbeing with their attitude to spiritual care. The years of work was actually a negative predictor of the nurses' attitude toward spiritual care.

Table 2. Variance analyses of correlations among nurses' antecedents and spiritual wellbeing with their attitudes to spiritual care

Model	Sum of squares	Freedom degree	Square of mean	F Statistic	P
Regression	23138.284	5	4627.657	13.408	0.001 ^a
Residual	42797.416	124	345.140		
Total	65935.700	129			

Independent variable: attitude to spiritual care

Table 3. Path coefficients of correlations among nurses' antecedents, spiritual wellbeing with their attitude to spiritual care

Variables	Non standardized coefficients		Standardized coefficients	t	P
	β	SE	β		
Fixed amount	41.878	24.502		1.709	0.09
Years of services	-0.155	0.300	-0.050	-	0.60
Work history	0.640	0.4550	0.013	0.141	0.88
Age	0.325	0.250	0.127	1.301	0.19
Spiritual wellbeing	0.501	0.101	0.450	4.969	0.001

Discussion

The most important finding of this study was the better relationship of the nurses' spiritual wellbeing with their attitudes to spiritual care. On the other hand, with the nurses' spiritual wellbeing increasing, their attitudes to spiritual care also increased. This finding was congruent with other studies about this topic. In congruence with our study, Vance found that there was a positive and meaningful relationship between oncology nurses' spiritual wellbeing and their spiritual care providing.⁷ It means that nurses who had high spiritual wellbeing, had a positive attitude to spiritual care and included spiritual care in their nursing care. In another study, Musgrave and McFarlane found a significant relationship between attitudes toward spiritual care and spiritual well-being among the nurses who cared for non-oncology populations. However, they stated that little research has examined oncology nurses' attitudes toward spiritual care and the way their spiritual well-being has influenced their attitudes.²⁰

We found a positive relationship between oncology nurses' spiritual wellbeing and their attitudes to spiritual care. Because spirituality is an exploratory journey to finding meaning and purpose of life in relation to God and others. According to Neuman the nurses who were aware of their own spirituality and spiritual needs could better help others in finding meaning and purpose of life.²¹ The results of the other correlational study by Azarsa and his colleagues showed that only the nurses' spiritual wellbeing and its subscales (religious and existential), attitude to spirituality and spiritual care and three subscales of this (spirituality, spiritual care and religiosity) have a positive correlation with the nurses spiritual care competence.²² In this case, Taheri-Kharameh et al., revealed that critical care nurses' attitudes to spirituality

and spiritual care were in a moderate range. Evaluation of total score of each nurse indicated that the mean score of nurses attitudes toward spirituality and spiritual care in nurses was 55.95 while most of them received a score between 32- 62.²³

The age was a direct predictor of the nurses’ attitude towards spiritual care. This means the older nurses had more positive attitudes towards spiritual care. In this case

Taylor *et al.*, found that there was a significant relationship between hospice oncology nurses and their attitudes to spiritual care providing.¹⁹ In another study on the nurses age, sex, marital status, education, employment, position, work shifts, location of employment, having a second job, and work experience, only age and work experience were found to have a significant correlation with their attitudes towards spirituality and spiritual care.²³

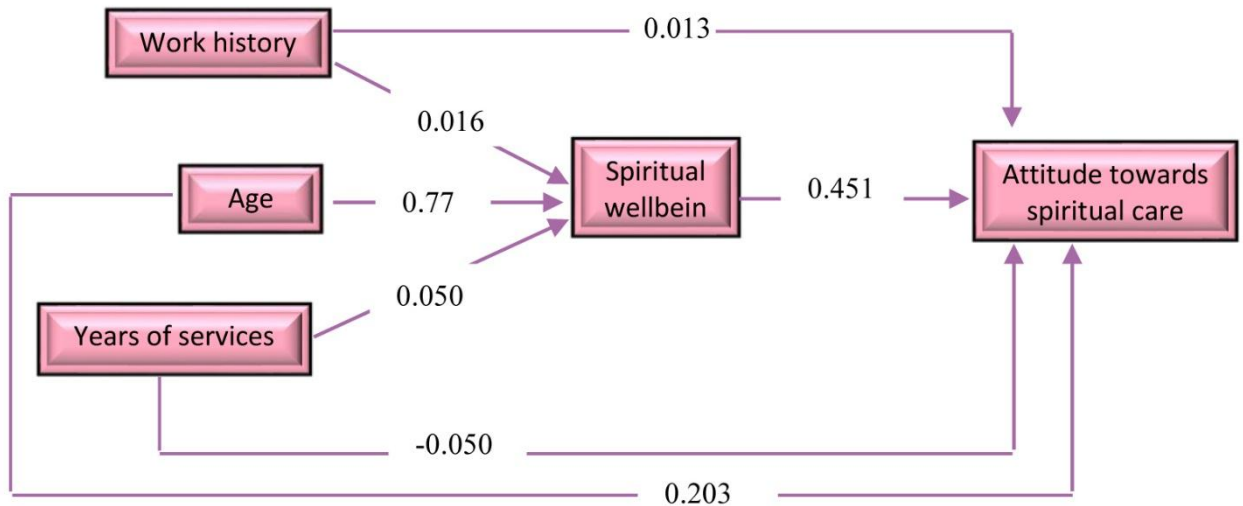


Figure 1. The path analysis of model include oncology nurses’ antecedent factors, spiritual wellbeing and their attitude towards spiritual care

Table 4. Relationships among oncology nurses’ antecedents and their spiritual wellbeing

Oncology nurses’ antecedents	Spiritual wellbeing		
	Test	Sig. level	Test result*
Age	R= 0.179	0.041	
Sex	X ₂ = 0.54	0.460	Non-sig.
Ethnicity	X ₂ = 9.710	0.469	Non-sig.
Oncology nursing history	r = 0.164	0.062	Non-sig.
Nursing work history	r = - 0.054	0.285	Non-sig.
Education	X ₂ = 1.130	0.568	Non-sig.
Financial status Satisfaction	X ₂ = 6.359	0.042	Kramer V= 0.221*
Employment status	X ₂ = 2.265	0.519	Non-sig.
Social class	X ₂ = 12.410	0.006	Kendal Tau b = 0.750 *
Marital status	X ₂ = 4.350	0.114	Non-sig.
Physical health status	X ₂ = 7.594	0.055	Kendal Tau b=-0.078*
	Rho = -0.176	0.045	
Mental health status	X ₂ = 26.578	0.000	Kendal Tau b=-0.079*
	Rho = -0.252	0.004	
Social health status	X ₂ = 6.960	0.138	Non-sig.
Spiritual care status	X ₂ = 1.907	0.358	Non-sig.
Spiritual care time	X ₂ = 2.764	0.354	Non-sig.
Spiritual health status	X ₂ = 11.487	0.002	Kendal Tau b= -0.259 *
	Rho = -0.271		
Spiritual care course status	X ₂ = 0.358	0.550	Non-sig.
Academic education necessity	X ₂ = 1.222	0.519	Non-sig.

*Significant

Table 5. Relationships among oncology nurses' antecedents and their attitude towards spiritual care

Oncology nurses' antecedents	Attitude towards spiritual care test	Significant level	Test result*
Age	r= 0.203	0.020	
Sex	X ₂ = 0.195	0.659	Non-sig.
Ethnicity	X ₂ = 11.389	0.181	Non-sig.
Oncology nursing history	r= 0.155	0.079	Non-sig.
Nursing work history	r= -0.049	0.578	Non-sig.
Education	X ₂ = 1.429	0.489	Non-sig.
Financial status satisfaction	X ₂ = 0.139	0.933	Non-sig.
Employment status	X ₂ = 1.586	0.663	Non-sig.
Social class	X ₂ = 2.391	0.495	Non-sig.
Marital Status	X ₂ = 7.144	0.028	Kramer V= 0.234*
Physical health status	X ₂ = 1.239 Rho= - 0.057	0.518	Non-sig.
Mental health status	X ₂ = 1.938 Rho= - 0.055	0.747 0.538	Non-sig.
Social health status	X ₂ = 5.005, Rho= 0.157	0.046 0.287	Kendal Tau C=0.174*
Spiritual care status	X ₂ = 0.185	0.667	Non-sig.
Spiritual care time	X ₂ =0.132	0.098	Non-sig.
Spiritual health status	X ₂ = 4.431 Rho= - 0.06	0.040 0.501	Kendal Tau C= -0.069*
Spiritual care course status	X ₂ = 0.041	0.840	Non-sig.
Academic education necessity	X ₂ = 5.399	0.067	Non-sig.

*Significant

In contrast to our study, Azarsa and his colleagues revealed that there was no significant relationship between demographic variables such as age, sex, marital status, work experience, and financial condition and critical care nurse's spiritual wellbeing, competence to provide spiritual care, and attitude to spirituality and spiritual care.²²

Working as a nurse history was a negative predictor for nurses' attitudes towards spiritual care. This finding was seen due to high knowledge of newly employed young nurses because in recent years the topic of spirituality and spiritual care has been integrated into nursing curriculum in IRAN. Tylor et al., found an opposite result namely that there was a positive relationship between nurses' age and education level and their attitudes to spiritual care. This finding is congruent with Taylor et al., and Khorami Markani et al.^{19, 24}

Conclusion

The causal model explained 35.1% of oncology nurses' attitudes towards spiritual care total variance in relation to their age, work history in oncology wards, and spiritual wellbeing. Oncology nurses' spiritual wellbeing had a positive and strong relation with their attitude to spiritual care. Working as an Oncology nurse history and general nurse' history had a more direct and a little indirect relation mediated by their spiritual wellbeing with nurses' attitudes to spiritual care. This relation was not significant statistically about nurses' oncology background. However, the study model and its concepts had good spiritual care relating factors, but we declare that it is not a comprehensive and complete model in assessing the related factors to oncology nurses' attitudes. Therefore, it is necessary that the other oncology nurses' related variables must be identified such as religious dependency, formal job education, continuous education background

and academic learning about spirituality and spiritual wellbeing. Finally, nurse researchers need to examine the spiritual dimension of oncology nurses and the way that this influences attitudes toward spiritual caregiving in cancer wards.

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Ethical issues

None to be declared.

Conflict of interest

The authors declare no conflict of interest in this study.

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