The spiritual needs of nurses caring for patients with COVID-19 disease

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Abstract

Context: Due to the wide prevalence of coronavirus disease 2019 (COVID-19) in Iran, there is a great deal of pressure on nurses who are taking care of patients with COVID-19.

Aims: This study aims to investigate the spiritual needs of nurses caring for patients with COVID in Imam Khomeini Hospital in Sari.

Settings and Design: This descriptive–correlational research method based on structural equations modeling was conducted at Mazandaran University of Medical sciences.

Materials and Methods: The statistical population of the study included all nurses working in the corona ward of Imam Khomeini Hospital in Sari. One hundred out of 140 nurses were randomly selected using Krejcie Morgan formula as the sample size. The Spiritual Needs Questionnaire designed by Büssing *et al.* was used to assess the spiritual needs of nurses.

Statistical Analysis Used: SPSS and PLS 3 software were used at the significance level of $\leq 0/05$ for the analysis of regression equations.

Results: The results of the study demonstrated that there is a significant relationship between spiritual needs and its subfactors in nurses caring for COVID-19 patients in Imam Khomeini Hospital in Sari which is based on the path coefficient between nurses "spiritual needs and religious needs (0.752), the need for inner peace (0.699), existentialism needs (0.539), and actively giving needs (0.586)." Furthermore, the PLS 3 of the research was 0.691 which indicated that the structure of the model is well suited to the data. **Conclusion:** This research led to make a model showing the relationship between spiritual needs and religious needs, the need for inner peace, the existentialism needs, and the actively giving needs in COVID-19 ward.

Keywords: COVID-19 disease, Nurses, Religious needs, Spiritual needs

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INTRODUCTION

Coronavirus disease 2019 (COVID-19), which is known as severe respiratory illness, is an infectious disease caused by a newly discovered coronavirus and is closely related to the SARS virus.^[1] COVID-19 is rapidly becoming an unprecedented global health and economic crisis. This epidemic virus (COVID-19) was discovered in December 2019 in China. At the same time, the World Health Organization in China declared the public health emergency of international which was gradually spread to other countries.^[2] As healthcare staff are directly exposed to critical conditions for the diagnosis, treatment, and care of COVID-19 patients in the forefront, they are at risk for mental distress and other mental health symptoms.^[2,3]

Humans are multidimensional beings. If each of these dimensions is ignored, a vital part of a person's humanity that has a significant impact on their whole life will be removed. One of the most important dimensions of human existence is spirituality which includes a set of values, attitudes, and hopes connecting the person with a superior being, health, and better feeling. [4,5] Spirituality is an essential component of health and hygiene. In the last decade, some members of the medical team, psychiatrists, and sociologists have realized that spirituality can have a significant effect on various aspects of medical care. [6] Studies indicate a strong relationship between the degree of employees' religious feelings and spiritual needs. [7]

Nowadays, the role of spirituality has been given more attention as an essential element of clinical care in promoting human health and helping them to meet the spiritual needs of their families. Attention paid to the spiritual needs of individuals is an integral part of human needs, and studies have emphasized holistic nursing care that is the care of body, mind, and soul. Accordingly, in recent years, researchers have paid more attention to the spiritual needs of human beings to promote their health and improve their quality of life. They believe that there is an extraordinary power in faith in God that gives a kind of spiritual power to human beings and helps them to endure the hardships of their daily life. It removes the worries and anxieties of many people who are at risk for the disease today.

Spirituality is an important part of human performance that actually determines what methods people use to assess their spiritual needs. It consists of various dimensions which include activities related to behaviors such as respecting people and their dignity, maintaining their confidential information, and valuing their spiritual and religious

needs.^[12] According to the World Health Organization's recommendation, all nurses' actions have to be focused on all the aspects of people's treatment, while their spiritual dimension is neglected.^[13]

Livneh et al. claimed that human spiritual needs play a main role in adapting to stressful conditions caused by chronic diseases.[14] Strang et al. demonstrated that 87% of nurses mostly believed spiritual needs have to be paid attention, whereas only 42% of them thought that these measures were performed in their wards.^[15] Mazaheri et al. indicated that there is a positive attitude toward nurses' spirituality and their desire to enjoy it.[16] McSherry and Jamieson found that spiritual needs increase the overall quality of nursing needs. However, despite all the attention to the spiritual dimension, most nurses felt that they needed more organizational support and guidance to be empowered to provide their spiritual needs.[17] Although in recent years, it has been focused on the spiritual dimension of health care, especially spiritual care considered a mandatory duty of nurses, the spiritual needs of nurses have been ignored.[18] Nurses have a fundamental and decisive role as one of the main members of the health group in promoting the health of the community and progress in different levels of health care is not possible without active and knowledgeable nurses. Therefore, due to the fact that COVID is widespread in Iran, nurses along with other treatment staff are engaged to take care of patients with COVID-19. In the sake of the negative impact of pressure of excessive care on nurses of coronavirus patients such as high work pressure, reduction of personal protective equipment, lack of special drugs, and lack of support from all, as well as the role of spirituality as one of the coping strategies in the face of the problems and adversity of this disease, it is necessary to study the spiritual needs of nurses caring for coronavirus patients in Imam Khomeini Hospital in Sari.

MATERIALS AND METHODS

The present article is a descriptive—correlational research based on structural equations modeling. It aims to provide a model for the spiritual needs of nurses caring for patients with COVID-19 in Imam Khomeini Hospital in Sari in the winter and spring 2020. The statistical population of the study included all nurses in different categories (head nurse, nurse, paramedic, and assistant paramedic) working in the corona ward of Imam Khomeini Hospital in Sari. 100 out of 140 nurses were randomly selected using Krejcie Morgan formula as the sample size. Moreover, written consent was received from them.

Then essential explanations about the study were provided and the nurses were requested to answer the questionnaire related to demographic information and spiritual needs carefully. Furthermore, this study was approved by the ethics committee of Mazandaran University of Medical Sciences with the code IR.MAZUMAS.REC.1399.7611.

The Spiritual Needs Questionnaire was designed by Büssing et al. in 2010 to assess spiritual needs of patients. This questionnaire has contextual 19 items which differentiates 4 main factors: Religious needs (praying for and with others, and by themselves, participate at a religious ceremony, reading of spiritual/religious books, and turn to a higher presence), the need for inner peace (wish to dwell at places of quietness and peace, plunge into the beauty of nature, finding inner peace, talking with other about fears and worries, and devotion by others), existential needs (reflect previous life, talk with someone about meaning in life/suffering, dissolve open aspects in life, and talk about the possibility of a life after death) and actively giving (addresses the active and autonomous intention to solace someone, to pass own life experiences to others, and to be assured that your life was meaningful and of value). In this questionnaire, the answers are evaluated based on the 4-point Likert scale from the lowest to the highest.^[19] The minimum and maximum score of the subject in are from 19 to 76 in this test. Since most psychologists and psychiatrists use this questionnaire to assess religious spiritual needs and it has strong psychometric properties, it is considered as a research instrument. Büssing et al. used the internal consistency estimate method formula (Cronbach's alpha) to assess the reliability of the questionnaire. Cronbach's alpha was reported for factors of religious needs, the need for inner peace, existential needs, and the need for actively giving 0.90, 0.83, 0.84, and 0.82, respectively. Furthermore, four primary factors were maintained in the confirmatory factor structure of the scale in the sample groups with chronic pain and cancer, which indicates the validity of the appropriate structure of the scale.^[20]

Both reliability and internal consistency of this questionnaire were evaluated by Ahangarkani *et al.* in Iran. In this regard, the internal consistency of the spiritual needs components including the need for peace, existential needs, religious needs, and actively giving needs were obtained 0.701, 0.769, 0.914, and 0.777, respectively. Therefore, it indicates that the validity of this tool is suitable to evaluate the spiritual needs.^[21]

Cronbach's alpha statistical method was utilized to measure the reliability in this study. The results showed that Cronbach's alpha values consisting spiritual needs, religious needs, need for inner peace, existentialism needs, and actively giving needs were obtained 0.882, 0.850, 0.786, 0.875, and 0.859, respectively. Therefore, it illustrates that the level of reliability of the tool is appropriate.

SPSS (SPSS 21 version, Chicago, IL, USA) and PLS 3 (Smart PLS, Hamburg City, Germany) software were used to analyze the data. The indicators of mean, median, mode, standard deviation, and many tables were used in the descriptive statistics section. Significance level was considered ≤0.05 in this study.

RESULTS

The participants of this study were 45 females (45%) and 55 (55%) males chosen among 100. Furthermore, there were 25 people (25%) in the age group of 20–30 years, 55 people (55%) in the age group of 31–40 years, and 20 people (20%) in the age group of 50–59 years. In the total sample, 75 (75%) nurses were married and 25 ones (25%) were single. In addition, there were 5 (5%) formal nurses, 10 (10%) promissory nurses, 70 (70%) contractual nurses, and 15 (15%) corporate nurses. Out of 100 statistical samples, 85% of nurses worked in coronavirus ward. None of the nurses has a background disease and a history of taking psychiatric drugs.

Based on the results of Table 1, the average of all dimensions of the Spiritual Needs Questionnaire of Büssing *et al.* is disaggregated. In the questionnaire, the highest mean is related to the need for actively giving and the lowest mean is related to the dimension of religious needs. Other dimensions of spiritual needs are higher than average (2.5).

Based on Cronbach's alpha values and the combined reliability reported in Table 2, as shown, all variables with Cronbach's alpha values are above 0.786, indicating that the model domains have good reliability. Convergent validity is also another criterion used to fit the measurement model in the PLS structural equation modeling method. The value of convergent validity above 0.5 is acceptable [Table 2].

According to the criterion of significance coefficient (*t* values) in each of the models in Figure 1, it is indicated that all significance coefficients are >2.58 showing the significance of all relationships between factors at the 95% confidence level.

As shown in Table 3, the main endogenous variables of the model are in the range (0.580-0.752) and the R^2 average is

higher than the medium and strong which is specified in Table 3. Furthermore, according to Table 4, the effect of the variables is large, so the relationship between the other variables was higher than medium and large.

Overall model fit (goodness-of-fit index criterion)

The goodness-of-fit index (GOF) is a measure of the overall fit of a model to predict endogenous variables. This index is the multiply squared of two values of communality average and the R^2 average. It demonstrates the relationship between spiritual needs and its factors including the religious needs, the need for inner peace, the existentialism needs, and the actively giving needs.

GOF =
$$\sqrt{\text{average (communality)}} \times R^2$$

Formula 1: Formula for calculating the overall fit of the model in the method (PLS)

As seen in this study, the calculated value for GOF is 0.691 which is greater than the strong value of 0.36 [Table 5], and therefore, the fitting of the overall research model is appropriate and the model structure fits the data well.

Average (communalities) =0.702

Average $(R^2) = (0.756 + 0.748 + 0.643 + 0.584)/4 = 0.682$

GOF = 0.691 strong overall fit

As shown in Figure 2, the *t* value between spiritual needs and its factors is >2.58. Based on the reliability of 95%, it is concluded that there is a significant relationship between the spiritual needs (religious needs, the need for inner peace, existential needs (reflection/meaning), and actively giving needs) of nurses caring for COVID-19 patients in Imam Khomeini Hospital in Sari.

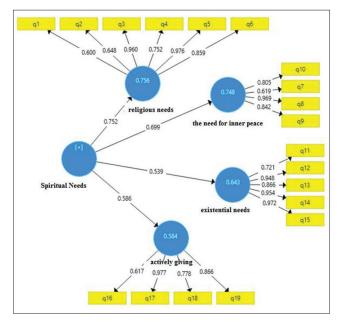


Figure 1: $I\!\!P^2$ average, path coefficient, and factor load of research questionnaire items

Table 1: Average views of the participants about the scope of the spiritual needs questionnaire

| Questionnaire | Dimensions (scope) of spiritual needs | Responder | Mean | SD | Minimum | Maximum |
|---------------|--|-----------|-------|-------|---------|---------|
| A | The spiritual needs of Büssing et al. (2010) | 100 | 3.264 | 0.178 | 2.84 | 3.68 |
| A1 | Religious needs | 100 | 3.188 | 0.309 | 2.33 | 3.83 |
| A2 | Need for inner peace | 100 | 3.340 | 0.358 | 2.50 | 4.00 |
| A3 | Existentialism needs (reflection/meaning) | 100 | 3.198 | 0.367 | 2.00 | 4.00 |
| A4 | Actively giving needs | 100 | 3.385 | 0.296 | 2.50 | 4.00 |

SD: Standard deviation

Table 2: Questionnaire reliability coefficient after checking the validity of the questionnaire items

| Questionnaire | Statistical test dimensions (scope) of the questionnaire | Number of items | Cronbach's alpha | Combined reliability | Mean variance extracted (AVE) |
|---------------|--|-----------------|------------------|----------------------|-------------------------------|
| A | The spiritual needs | 18 | 0.882 | 0.178 | 0.702 |
| A1 | Religious needs | 6 | 0.850 | 0.309 | 0.722 |
| A2 | Need for inner peace | 6 | 0.756 | 0.358 | 0.617 |
| A3 | Existentialism needs (reflection/meaning) | 6 | 0.845 | 0.367 | 0.714 |
| A4 | Actively giving needs | 34 | 0.870 | 0.296 | 0.756 |

AVE: Average variance extracted

Table 3: R² values of endogenous variables of the research model

| Questionnaire | Dimensions (scope) of the research questionnaire | R ² average or R ² | Modified R ² average or R ² | Quality |
|---------------|--|--|---|---------|
| A | The spiritual needs | - | _ | _ |
| A1 | Religious needs | 0.756 | 0.752 | Strong |
| A2 | Need for inner peace | 0.748 | 0.745 | Strong |
| A3 | Existentialism needs (reflection/meaning) | 0.643 | 0.639 | Strong |
| A4 | Actively giving needs | 0.580 | 0.584 | Medium |

DISCUSSION

The results of the present study showed that there is a significant relationship between the spiritual needs (religious needs, the need for inner peace, existential needs [reflection/ meaningl, and actively giving needs) of nurses caring for COVID-19 patients in Imam Khomeini Hospital in Sari. The results of the research are similar to the results of researchers called Ahangarkani et al., [21] Liu et al., [22] Kim and Yeom, [23] and Palmer et al. [24] who stated in their study that spiritual needs are related to the well-being of life. Ahangarkani et al. found that the components of spiritual needs and tissue factors as two psychological structures can play a role in the spiritual well-being of patients.^[21] Liu et al. also reported in their study that physicians and nurses who were exposed to higher COVID-19 patients experienced higher levels of anxiety, depression, and stress, therefore, it is important to pay attention to the spiritual needs of these nurses.^[22] Kim and Yeom also claimed that if spiritual well-being is increased, it can reduce fatigue among intensive care unit nurses. [23] The whole system of creation is based on need; on the other hand, human in this system is a creature in need. There are two origins in human creation that are in harmony with the two tendencies within human beings. The heavenly origin of human tends to his principle that is the heavenly world. Therefore, human always tends toward God innately, and the infinite desires of human nature are for knowing and connecting with his principle. Human has been created through this dimension to know and worship God.^[21] In contrast to the heavenly dimension, there is a natural dimension that tends to its principle that is the realm of property and the material world; as innateness tends to the heaven; human nature tends to guilt, human is aware of both his existential tendencies. Spiritual needs are generally divided into three parts including epistemological (cognitive), doctrinal and moral which form the personality of the individual and guide human to achieve a peaceful and divine life. In addition, the ultimate goal of satisfying those needs is to reach nearness to God and perfection, which causes peace of mind. If the human beings are more educated, their spiritual needs, spiritual pleasures and ultimately, their spiritual life will be more affected by their material needs and pleasures.^[23] Existentially, spirituality is human being's innate need and the material dimension of human beings is the discovery of nature and how to use the world more to meet their needs, and so, the needs of human beings are also found in spirituality. [22] It is important to people to be aware of the factors creating spirituality, its strengthening, the factors of wear and tear of spirituality, and the possibility of calculating the amount and level of spirituality changes during movement.

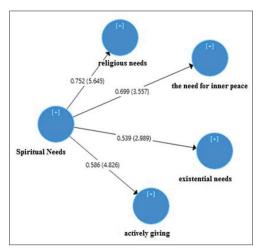


Figure 2: Path coefficients and t values

Table 4: The effect of size amount of the dimensions (scope) of research questionnaires

| Impact path of factors | Amount F ² (effect size) | Effect size |
|---|-------------------------------------|----------------|
| The spiritual needs | | |
| Religious needs | 1.302 | Large |
| Need for inner peace | 0.956 | Large |
| Existentialism needs (reflection/meaning) | 0.449 | Large |
| Actively giving needs | 0.635 | Large |

Table 5: Communality values

| Factors | Communality |
|---|----------------|
| The spiritual needs | 0.722 |
| Religious needs | 0.617 |
| Need for inner peace | 0.717 |
| Existentialism needs (reflection/meaning) Actively giving needs | 0.756 0.702 |

In fact, the lack of this awareness and the reduction of spiritual reserve can cause nurses to have a lot of stress. If spirituality is increased and maintained in nurses, the factors making them anxious will be disappeared. Religion through its moral instructions and life-giving teachings extinguishes human beings' fire of greed, ambition, and amassing wealth which make them have mental anxiety and calls them to self-respect, temperance, and piety, besides, spirituality causes people to believe the resurrection, and the day of resurrection which refreshes human material life.^[5]

Nursing is a profession that is deeply rooted in individual and social beliefs and values. Nurses are the largest group of service providers in the health system and have a significant impact on the quality of health care; meanwhile, observing ethical standards will be an effective factor to improve the performance of nurses in providing quality care. In this regard, care ethics should be considered more than therapeutic considerations in nature of nursing. Nursing ethics is one of the most fundamental issues of education in the nursing

profession, which obliges nurses to follow the principles so that the client can receive nursing care with more trust. Due to the fact that spiritual needs are a part of holistic care in nursing, so it is influenced by nursing ethics and nurses are expected to provide care based on the condition and physical, psychological, social, and spiritual needs of patients. Relating spiritual needs to each of the religious needs, the need for inner peace existential needs and actively giving needs can be considered as an important factor to increase morale and reduce anxiety in nurses and improve the quality of nurses' performance. The relation of spiritual needs to each of the religious needs, the need for inner peace existential needs and actively giving needs can be considered as an important factor to increase morale and reduce anxiety in nurses and improve their quality of performance. Spiritual needs being as an active process between the patients and the nurses begin when the nurses recognize the patients' spiritual needs and take appropriate action in relation to it. Only the nurses of Imam Khomeini Hospital were used in this study as this hospital was the only corona center in Sari at the time of corona outbreak. This issue can be considered as a limitation in future research by researchers who seek the complete control over the variables affecting the research results.

CONCLUSION

This research led to make a model showing the relationship between spiritual needs and its factors (religious needs, the need for inner peace, the existentialism needs, and the actively giving needs) in COVID-19 ward. According to the relationship between spiritual needs and its factors including religious needs, the need for inner peace, existentialism needs and the actively giving needs, it can be suggested that if the level of spiritual needs increases, it will lead to more understanding of patients and brings comfort of nurses. Therefore, by paying attention to the level of spiritual needs of nurses through its subfactors, it is possible to achieve the goals of the medical and health system. Besides, based on the results of the study, it can be offered that the nurses can adopt a suitable strategy for spiritual care to cope with the pressures of caring for patients with COVID-19 which can improve the quality of patient care, and increase the quality of nurses' life.

Conflicts of interest

There are no conflicts of interest.

Authors' contribution

All authors participated in all stages of the article.

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