



## Research Paper

# Relationship Between Nurses' End of Life Spiritual Care Knowledge and Attitudes With Religious Attitudes



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## ABSTRACT

**Background and Objectives:** Spiritual care is a part of holistic nursing care for end-of-life patients. One of the dimensions of this care is the religious dimension, which seems to be influenced by religious attitudes. Therefore, this study was conducted to determine nurses' knowledge and attitude toward spiritual care for end-of-life patients and to investigate their relationship with religious attitudes in Pastor Hospital of Bam, southeast Iran.

**Methods:** This descriptive-correlational study was conducted from November 2019 to May 2020. A total of 218 nurses were selected using the convenience sampling method. Data were collected using a researcher-made questionnaires containing four sections. Data analysis, which included descriptive and inferential statistics, was performed using SPSS software, version 24.

**Results:** The mean scores of knowledge and attitude toward spiritual care were 13.62±3.36 and 73.94±8.52, respectively, reflecting a moderate level. The mean score of religious attitude was 133.86±19.37, reflecting a high level. Additionally, a significant relationship was observed between the scores of knowledge and attitude toward spiritual care, religious attitude, and some demographic variables (P<0.05).

**Conclusion:** The current level of knowledge and attitude toward spiritual care is inadequate to provide holistic care for end-of-life patients. Considering the relationship between religious attitude and the main study variables can attract appropriate human resources.

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## Introduction

End-of-life patients are those with advanced diseases, expected to live six months or less, and who need care aimed at improving or maintaining quality of life to experience a dignified death [1]. Spiritual care facilitates discovering and processing spiritual needs, since patients' spiritual needs, concerns, and fears increase at the end of life. As frontline caregivers, nurses are often responsible for assessing such needs during this period. If these needs are not properly identified and addressed, they may lead to spiritual distress, worsening the suffering and pain of patients, as diagnosing and meeting spiritual needs is more complex than providing care in other dimensions [2]. Therefore, nurses are required to acquire special skills in caring for these patients, gain a positive attitude toward them, and alleviate their problems [3]. Historically, there has been a close relationship between nursing services and the provision of spiritual care, largely due to the development of numerous hospitals and nursing programs initiated by religious orders and institutions [4]. Spiritual care plays a significant role in improving patients' overall well-being and is a reinforcing factor that helps patients cope better with adversity and, as a source of coping, increases hope for the future [5-7]. Due to the nature of their profession, nurses are the first group to spend the most time with sick and near-death patients. Accordingly, they are required to develop their knowledge and attitude to provide spiritual care and successfully and effectively integrate them with their professional performance [8].

Researchers believe that religion is a model of institutionalized values, beliefs, symbols, behaviors, and experiences oriented toward spirituality. Religion both is a means and an internal issue leading to spirituality [9]. The religious aspect of spiritual care includes praying with the patient, talking to the patient about God, clarifying the relationship between the patient and God, using religious texts, and referring the patient to a spiritual leader. The non-religious dimension of spiritual care includes communication skills, counseling, emotional and spiritual support, active listening, encouraging patients to express their feelings and think positively, empathetic communication, and respecting clients [10].

Some studies have noted that nurses meet patients' spiritual needs by providing religious books, creating opportunities and spaces for worship, facilitating participation in religious ceremonies, expressing empathy and support, fostering trust and honesty, listening to patients, and inviting clergy to visit terminally ill patients [11,

12]. However, with the increase of secularism, religion's influence on spiritual care is likely to diminish, even though nurses understand the need to provide spiritual and religious support in circumstances, such as delivering bad or death news to patients and families [4]. Since most deaths occur in the hospital, optimizing end-of-life care models seems indispensable [13]. Nevertheless, due to the spread of cultural differences and spiritual/religious needs, there are doubts about whether nurses have adequate knowledge and attitudes to respond and provide spiritual care to patients and whether their religious attitude influences this type of care.

## Methods

### Study design

This descriptive-correlational study was conducted from November 2019 to May 2020 to determine nurses' knowledge and attitudes toward spiritual care in end-of-life patients at Pastor Hospital, Bam (in the southeast of Iran), and to investigate its relationship with their religious attitudes. The statistical population consisted of 240 nurses. The sample size was calculated as 218 individuals based on Cochran's formula (Equation 1) ( $d=0.03$ ,  $z=1.96$ ,  $p=0.5$ ,  $q=0.5$ ). Participants were selected using convenience sampling from the intensive care unit (ICU), critical care unit (CCU), and internal, surgical, and emergency departments, and included nurses who were willing to participate in the study.

$$1. n = \frac{Z^2 pq}{d^2} \div \left( 1 + \frac{1}{n} \left( \frac{Z^2 pq}{d^2} - 1 \right) \right)$$

### Measurements and procedure

The inclusion criteria included holding at least a bachelor's degree, at least one year of work experience, and the willingness to participate in this study. The exclusion criterion was submitting an incomplete questionnaire. The researchers obtained ethics committee permission, coordinated with the relevant officials, and extracted a list of nurses. Eligible participants were numbered and underwent random sampling. Due to the COVID-19 pandemic, paper questionnaires could not be distributed and were converted to electronic form. Participants received relevant links and informed consent forms via mobile numbers to complete them.

Four questionnaires were used to collect data. Since the majority of the available instruments were related to spirituality, the research team designed a questionnaire by re-

viewing the literature and considering the study context in order to investigate nurses' knowledge and attitudes toward spiritual care [14-21]. First, an initial pool of items was created. Afterward, ten nurses' opinions were sought to determine the quantitative face validity using the "item effect" method. Items with an effect score higher than 1.5 were deemed suitable for further analysis and were retained. The quantitative content validity was evaluated using the content validity ratio (CVR) and content validity index (CVI). The items were sent to ten nursing faculties via email. CVI and CVR were calculated as 0.97 and 0.99 for the knowledge section and one for the attitude section, respectively. The reliability of the questionnaire assessing nurses' knowledge and attitudes toward spiritual care for end-of-life patients was calculated as 0.72 and 0.77, respectively, using Cronbach's  $\alpha$  coefficient.

The final version of the instrument consisted of four sections. The first section consisted of demographic information, including age, gender, marital status, educational qualification, and work experience, along with several multiple-choice questions. The second section assessed the nurses' knowledge of spiritual care for end-of-life patients, which initially included 30 items and was reduced to 25 after integrating opinions and applying modifications. The answers in this section were scored as 'true,' 'no idea,' and 'false.' A score of one was assigned for 'true,' while 'no idea' and 'false' were both scored as zero. The maximum and minimum possible scores were 25 and 0, respectively. The mean scores were categorized as low (0-7), moderate (8-16), and high (17-25) levels of knowledge. The third section assessed nurses' attitudes toward spiritual care in end-of-life patients, which initially included 25 items and was reduced to 22 after integrating opinions and applying modifications. In this section, the responses were scored on a five-point Likert scale ranging from completely agree (five) to completely disagree (one), with the maximum and minimum scores being 110 and 25, respectively. The mean scores were categorized as low (25-53), moderate (54-82), and high (83-110) levels of attitude. This questionnaire with 40 items was designed by Khodayari et al. [22] and has been used in several studies, including the study by Asadi et al. [23]. Its validity is 0.91. The reliability of the three subscales, including religious belief, religious emotions, and religious behavior, was calculated based on Cronbach's  $\alpha$  coefficient yielding values of 0.92, 0.81, and 0.91, respectively. In this questionnaire, scoring was based on a five-point Likert scale, ranging from completely agree (five) to completely disagree (one), with minimum and maximum scores of 40 and 200, respectively. The mean score of 40-92 was considered weak, 93-145 moderate, and above 145 strong levels of religious attitude.

## Statistical analysis

Data were analyzed using SPSS Software, version 24. Mean $\pm$ SD were used to describe quantitative variables, and frequency and percentage were used to describe qualitative variables. Since the values of skewness and elongation of nurses' knowledge and attitude scores regarding spiritual care in end-of-life patients, as well as nurses' religious attitude, were between +1 and -1, their distribution was assumed to be normal. Therefore, Pearson's correlation coefficient was used to investigate the relationship between the mean scores of nurses' knowledge and attitudes toward spiritual care for end-of-life patients, as well as the relationship between these two variables with religious attitudes. Moreover, the analysis of covariance was used to investigate the relationship between the main variables of the study and demographic variables. The confidence and significance levels were considered 95% and 0.05, respectively.

## Results

The participants' minimum and maximum age was 22 and 60 years, respectively. The majority of participants were married women with a bachelor's degree and 5-10 years of work experience. Additional information is provided in Table 1.

The mean score of nurses' knowledge and attitude toward spiritual care in end-of-life patients was moderate; however, the mean score of nurses' religious attitudes was high (Table 2).

Pearson's correlation coefficient showed a moderate positive linear relationship between nurses' knowledge and attitude toward spiritual care in end-of-life patients and their religious attitudes ( $P < 0.05$ ) (Table 3).

The analysis of covariance results revealed a significant relationship between the nurses' mean score of knowledge of spiritual care in end-of-life patients and "feeling the need to receive training on spiritual care," "receiving training," and "the department responsible for training nurses" ( $P > 0.05$ ). Moreover, a significant relationship was observed between the mean score of nurses' attitude toward end-of-life spiritual care and "history of exposure to patients with spiritual needs," "feeling the need to receive training," and "receiving training" ( $P < 0.05$ ). Finally, the results showed a significant relationship between the mean score of nurses' religious attitude and "source of identifying patient's spiritual needs," "feeling the need to receive training," and "receiving training" ( $P < 0.05$ ). Thus, the highest mean score for religious at-

**Table 1.** Participants' demographic and background characteristics (n=218)

| Variables                                       | No. (%)              | Mean±SD   |            |
|---|----------------------|-----------|------------|
| Age (y)   | >25                  | 20(8.1)   | 36.15±9.09 |
|   | 25-30                | 61(24.6)  |            |
|   | 31-35                | 100(40.3) |            |
|   | 36-40                | 30(12.1)  |            |
|   | 41-45                | 16(6.5)   |            |
|   | ≤51                  | 21(8.5)   |            |
| Sex   | Male                 | 114(46)   |            |
|   | Female               | 134(54)   |            |
| Marital status                                  | Single               | 75(30.2)  |            |
|   | Married              | 142(57.3) |            |
|   | Others               | 31(12.5)  |            |
| Education                                       | MSc                  | 79(31.9)  |            |
|   | BSc                  | 169(68.1) |            |
| Work Experience (year)                          | >5                   | 45(18.1)  | 12.79±8.74 |
|   | 5-10                 | 76(30.6)  |            |
|   | 11-15                | 42(16.9)  |            |
|   | 16-20                | 36(14.5)  |            |
|   | 21-25                | 19(7.7)   |            |
|   | 26-30                | 30(12.1)  |            |
| Confronting the patient with spiritual needs    | No                   | 55(22.2)  |            |
|   | Yes                  | 193(77.8) |            |
| Source of identifying patient's spiritual needs | Patient              | 101(40.7) |            |
|   | Patient's relatives  | 75(30.2)  |            |
|   | Other nurses         | 54(21.8)  |            |
|   | Religious counselors | 18(7.3)   |            |
| The person responsible for spiritual care       | Nurses               | 52(21)    |            |
|   | Religious counselors | 30(12.1)  |            |
|   | Patient's family     | 66(26.6)  |            |
|   | All                  | 100(40.3) |            |
| Ability to meet spiritual needs                 | No                   | 115(46.4) |            |
|   | Yes                  | 133(53.6) |            |

| Variables  | No. (%)                       | Mean±SD   |
|--|-------------------------------|-----------|
| Having sufficient knowledge about spiritual care       | No                            | 138(55.6) |
|  | Yes                           | 110(44.4) |
| Receiving training in spiritual care                   | No                            | 149(60.1) |
|  | Yes                           | 99(39.9)  |
| Feeling the need to receive training in spiritual care | No                            | 93(37.5)  |
|  | Yes                           | 155(62.5) |
| The department responsible for training nurses         | Nursing schools               | 70(28.2)  |
|  | Hospital education department | 71(28.6)  |
|  | The nurses themselves         | 19(7.7)   |
|  | All                           | 88(35.5)  |

MSc: Master of Science; BSc: Bachelor of science.

titude was found among nurses who felt the need to receive training regarding spiritual care, did not consider it necessary to receive training on issues related to spiritual care, and considered the patient as the source of identifying spiritual needs (Table 4).

## Discussion

This study was conducted in Pastor Hospital, Bam, Iran, in 2019 to investigate nurses' knowledge and attitudes toward spiritual care in end-of-life patients and its relationship with their religious attitudes. The results

showed that nurses' mean knowledge scores were at a moderate to low level. One study reported that spiritual care needs at the end of life are more important than those in other dimensions, and nurses are both morally and professionally obligated to provide such care. However, the evidence indicates that the provision of spiritual care for these patients is at its lowest level, and there are no unified guidelines in place [18].

The results of another study showed that the mean score of nurses' awareness of spiritual care for end-of-life patients was moderate, and only a small of nurses

**Table 2.** Mean scores of nurses' knowledge, attitudes toward spiritual care in end-of-life patients, and their religious attitude (n=218)

| Variables                | Rank    | No. (%)  | Mean±SD   | Min          | Max |     |
|--------------------------|---------|----------|-----------|--------------|-----|-----|
| Spiritual care knowledge | 0-7     | Low      | 2(0.8)    |              |     |     |
|                          | 8-16    | Moderate | 200(80.6) | 13.62±3.36   | 7   | 24  |
|                          | 17-25   | High     | 46(18.5)  |              |     |     |
| Spiritual care attitudes | 25-53   | Low      | 0(0)      |              |     |     |
|                          | 54-82   | Moderate | 211(85.1) | 73.94±8.52   | 55  | 101 |
|                          | 83-110  | High     | 37(14.9)  |              |     |     |
| Religious attitude       | 40-92   | Low      | 0(0)      |              |     |     |
|                          | 93-145  | Moderate | 2(0.8)    | 133.86±19.37 | 93  | 189 |
|                          | 146-200 | High     | 246(99.2) |              |     |     |

**Table 3.** Correlation between the mean scores of nurses' knowledge and attitudes toward spiritual care and religious attitude (n=218)

| Variables                | Spiritual Care Knowledge | Spiritual Care Attitudes | Religious Attitude |
|--------------------------|--------------------------|--------------------------|--------------------|
| Spiritual care knowledge | 1                        | r=0.5<br>P=0.001         | r=0.383<br>P=0.001 |
| Spiritual care attitudes | r=0.5<br>P=0.001         | 1                        | r=0.625<br>P=0.001 |
| Religious attitude       | r=0.383<br>P=0.001       | r=0.625<br>P=0.001       | 1                  |



reported receiving sufficient training in this area. The mean knowledge score was higher among staff who had experience working in home care centers, cared for close relatives, or were exposed to countless end-of-life patients, which is in line with the present study. In this study, it was suggested that educational programs be held to improve nurses' knowledge [3]. The results of this study were in line with the results of other studies, where insufficient personnel, cultural differences, high workload, and lack of training were identified as barriers to providing spiritual care [11, 24]. In some other studies, nurses' mean score of knowledge of spiritual care was not at an adequate level, and it was stated that nurses were not sufficiently prepared during their education period to provide spiritual care. This led to a call for the development of nursing curricula focused on spirituality and spiritual care [25-27]. Hence, according to these results, providing education on spirituality and spiritual care during education or as part of retraining and in-service courses can play an important role in improving knowledge in this area.

The mean score of nurses' attitudes toward spiritual care in end-of-life patients was at a moderate level. The results of a study indicated that the mean score of nurses' and nursing students' attitudes toward spirituality and spiritual care was moderate. It was also stated that to create a positive attitude toward spirituality and spiritual care in nurses, an appropriate platform for providing spiritual care should be established [28]. Another study stated that paying attention to spirituality is mandatory and an inherent issue for nurses. Vague attitudes toward spirituality, inadequate education, and lack of proper structures cause fear of providing spiritual care to patients. As a result, educational and support measures for attitude improvement structures are needed [29].

In this regard, some researchers believe that in order to alleviate some of these obstacles, nurses should be encouraged to identify and evaluate patients' religious beliefs and observe, encourage, and support them in all

possible means. The power of faith is unique for each patient and can serve as a source of motivation for life, providing comfort and confidence [30]. In Rachel et al.'s study, beliefs, values, and attitudes toward spiritual care, as well as the frequency and extent of spiritual care provided, willingness to offer it, knowledge of spirituality and spiritual care, and the ability to respond to spiritual pain, were among the factors influencing the provision of spiritual care. Therefore, it was recommended that more efforts be made to improve beliefs and attitudes toward spirituality and spiritual care, as well as preparedness, education, and knowledge of spiritual care measures [31]. In addition, ethnic and cultural diversity, as another influencing factor, should be taken into account [21].

The results showed that nurses had a high mean score for their religious attitudes. Being part of a religious or spiritual community can provide individuals with valuable support and hope due to a positive religious attitude. This social support system helps individuals cope with low socio-emotional resources [32]. A study showed that religious beliefs and attitudes positively affect individuals' ability to adapt to problems and are closely related to mental health. Consequently, cultivating nurses' deep beliefs and religious values during their education has been emphasized [33]. Some researchers believe that regardless of demographic and occupational characteristics, nurses bear the same attitude toward spirituality and spiritual care since spirituality occupies a significant role in all aspects of people's lives [34].

The present study also revealed a positive and significant relationship between nurses' knowledge and attitude toward spiritual care in end-of-life patients. This result is consistent with the study by Syamsiah et al. [35]. Hence, improving nurses' attitudes toward spirituality and the spiritual dimension of care and organizing in-service training are of particular importance, and require the inclusion of spirituality and spiritual care in nursing care educational programs [36]. However, some studies found a weak and inverse relationship between nurses'

**Table 4.** Relationship between nurses' end of life spiritual care knowledge, attitudes and religious attitudes with demographic variables (n=218)

| Variables                                       | Group                | Spiritual Care Knowledge |       |       |       | Spiritual Care Attitudes |       |       |       | Religious Attitude |       |       |       |       |       |       |       |       |        |       |       |       |
|---|----------------------|--------------------------|-------|-------|-------|--------------------------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|
|   |                      | MD                       | F     | P     | EF    | MD                       | F     | P     | EF    | MD                 | F     | P     | EF    |       |       |       |       |       |        |       |       |       |
| Age (y)   | >25                  | 14.3                     |       |       |       | 75.6                     |       |       |       | 139.2              |       |       |       |       |       |       |       |       |        |       |       |       |
|   | 25-30                | 14.05                    |       |       |       | 74.49                    |       |       |       | 137.21             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | 31-35                | 13.81                    | 0.939 | 0.475 | 0.021 | 74.48                    | 1.049 | 0.39  | 0.024 | 135.36             | 0.803 | 0.549 | 0.018 |       |       |       |       |       |        |       |       |       |
|   | 36-40                | 13.75                    |       |       |       | 73.67                    |       |       |       | 132.43             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | 41-45                | 11.69                    |       |       |       | 70.13                    |       |       |       | 123.56             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | ≤51                  | 12.33                    |       |       |       | 71.52                    |       |       |       | 121.81             |       |       |       |       |       |       |       |       |        |       |       |       |
| Sex   | Male                 | 13.18                    |       |       |       | 2.474                    |       |       |       | 0.117              |       |       |       | 0.011 | 73.59 | 0.001 | 0.971 | 0     | 131.98 | 0.257 | 0.613 | 0.001 |
|   | Female               | 13.99                    |       |       |       |                          |       |       |       |                    |       |       |       |       | 74.25 |       |       |       | 135.46 |       |       |       |
| Marital status                                  | Single               | 13.23                    |       |       |       | 73.35                    |       |       |       | 131.41             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | Married              | 14.08                    | 0.708 | 0.794 | 0.006 | 75.18                    | 0.206 | 0.814 | 0.002 | 136.72             | 1.073 | 0.344 | 0.01  |       |       |       |       |       |        |       |       |       |
|   | Others               | 12.42                    |       |       |       | 69.71                    |       |       |       | 126.71             |       |       |       |       |       |       |       |       |        |       |       |       |
| Education                                       | MSc                  | 13.94                    | 0.107 | 0.744 | 0     | 74.41                    | 0.437 | 0.509 | 0.002 | 135.88             | 1.201 | 0.274 | 0.005 |       |       |       |       |       |        |       |       |       |
|   | BSc                  | 13.64                    |       |       |       | 72.95                    |       |       |       | 129.56             |       |       |       |       |       |       |       |       |        |       |       |       |
| Work experience (y)                             | >5                   | 14.63                    |       |       |       | 76.11                    |       |       |       | 139.31             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | 5-10                 | 14.09                    |       |       |       | 74.71                    |       |       |       | 138.70             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | 11-15                | 13.64                    | 0.777 | 0.567 | 0.018 | 73.29                    | 1.139 | 0.341 | 0.025 | 130.02             | 1.495 | 0.192 | 0.033 |       |       |       |       |       |        |       |       |       |
|   | 16-20                | 13.56                    |       |       |       | 74.14                    |       |       |       | 132.92             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | 21-25                | 11.74                    |       |       |       | 72.16                    |       |       |       | 126                |       |       |       |       |       |       |       |       |        |       |       |       |
|   | 26-30                | 12.13                    |       |       |       | 70.57                    |       |       |       | 124.93             |       |       |       |       |       |       |       |       |        |       |       |       |
| Confronting the patient with spiritual needs    | No                   | 12.58                    |       |       |       | 1.907                    |       |       |       | 0.169              |       |       |       | 0.009 | 70.60 | 3.923 | 0.049 | 0.018 | 129.76 | 0     | 0.986 | 0     |
|   | Yes                  | 13.91                    |       |       |       |                          |       |       |       |                    |       |       |       |       | 74.90 |       |       |       | 135.03 |       |       |       |
| Source of identifying patient's spiritual needs | Patient              | 14.5                     |       |       |       | 76.85                    |       |       |       | 142.54             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | Patient's relatives  | 13.16                    | 0.851 | 0.467 | 0.012 | 72.36                    | 2.606 | 0.053 | 0.035 | 129                | 6.534 | 0.001 | 0.083 |       |       |       |       |       |        |       |       |       |
|   | Other nurses         | 12.81                    |       |       |       | 71.19                    |       |       |       | 125.87             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | Religious counselors | 13                       |       |       |       | 72.5                     |       |       |       | 129.39             |       |       |       |       |       |       |       |       |        |       |       |       |
| Nurses  | 12.63                | 73.5                     |       |       |       | 135.56                   |       |       |       |                    |       |       |       |       |       |       |       |       |        |       |       |       |
| The person responsible for spiritual care       | Religious counselors | 13.3                     | 1.671 | 0.174 | 0.022 | 72.17                    | 0.166 | 0.919 | 0.002 | 128.5              | 0.995 | 0.396 | 0.014 |       |       |       |       |       |        |       |       |       |
|   | Patient's family     | 12.53                    |       |       |       | 72.29                    |       |       |       | 128.77             |       |       |       |       |       |       |       |       |        |       |       |       |
|   | All                  | 14.94                    |       |       |       | 75.8                     |       |       |       | 137.95             |       |       |       |       |       |       |       |       |        |       |       |       |

| Variables  | Group                         | Spiritual Care Knowledge |        |       |       | Spiritual Care Attitudes |       |       |       | Religious Attitude |        |       |       |
|--|-------------------------------|--------------------------|--------|-------|-------|--------------------------|-------|-------|-------|--------------------|--------|-------|-------|
|  |                               | MD                       | F      | P     | EF    | MD                       | F     | P     | EF    | MD                 | F      | P     | EF    |
| Ability to meet spiritual needs                        | No                            | 13.45                    |        |       |       | 72.97                    |       |       |       | 131.3              |        |       |       |
|  | Yes                           | 13.76                    | 0.146  | 0.703 | 0.001 | 74.78                    | 1.166 | 0.281 | 0.005 | 136.08             | 0.005  | 0.945 | 0     |
| Having sufficient spiritual care knowledge             | No                            | 13.54                    |        |       |       | 73.62                    |       |       |       | 131.59             |        |       |       |
|  | Yes                           | 13.72                    | 0.054  | 0.817 | 0     | 74.35                    | 0.001 | 0.973 | 0     | 136.72             | 2.705  | 0.101 | 0.012 |
| Receiving training in spiritual care                   | No                            | 13.89                    |        |       |       | 74.49                    |       |       |       | 133/93             |        |       |       |
|  | Yes                           | 13.2                     | 1.532  | 0.217 | 0.007 | 73.12                    | 1.920 | 0.167 | 0.009 | 133.76             | 0.324  | 0.57  | 0.001 |
| Feeling the need to receive training in spiritual care | No                            | 12.28                    |        |       |       | 71.37                    |       |       |       | 126.38             |        |       |       |
|  | Yes                           | 14.42                    | 16.532 | 0.001 | 0.07  | 75.49                    | 7.269 | 0.008 | 0.032 | 138.35             | 11.182 | 0.001 | 0.049 |
| The department responsible for training nurses         | Nursing schools               | 12.67                    |        |       |       | 72.83                    |       |       |       | 130.9              |        |       |       |
|  | Hospital education department | 12.7                     |        |       |       | 71.61                    |       |       |       | 131.08             |        |       |       |
|  | The nurses themselves         | 12.16                    | 2.729  | 0.045 | 0.036 | 70.11                    | 2.591 | 0.054 | 0.034 | 132.32             | 0.509  | 0.676 | 0.07  |
|  | All                           | 15.42                    |        |       |       | 77.55                    |       |       |       | 130.31             |        |       |       |

Abbreviations: MSc: Master of science; BSc: Bachelor of science; MD: Mean difference; Ef=Effect size.



knowledge and attitude scores regarding caring for end-of-life patients. Therefore, training programs to develop end-of-life care and revising the nursing curriculum are essential steps to improve the quality of care [3].

A positive and significant relationship was also found between nurses' knowledge and attitude toward spiritual care in end-of-life patients and their religious attitude. According to some researchers, the first step to understanding spiritual care is to identify one's religious attitude, followed by identifying the religious attitude of patients. However, this issue is overlooked by the nurses [37]. Similarly, a study showed a positive and significant relationship between spiritual excellence and hospital staff's religious actions and attitudes. It was stated that religious beliefs contribute to the acceptance of responsibilities, play an essential role in human interactions and relationships and strengthen the determination to provide services [38].

The present study also revealed a positive and significant relationship between nurses' attitudes toward spiritual care in end-of-life patients and their religious attitudes. According to a study, although a positive attitude toward spiritual care is the first step toward its implementation, it alone cannot provide the context for implementing spiritual care in clinical settings [34]. Another study identified the most significant barrier to pro-

viding spiritual care as nurses' belief that spiritual care involves imposing their religious beliefs on patients. The researcher believed that this fear is due to the lack of training and preparedness to understand spirituality as a broad concept related to religiosity [27].

The final goal of the present study was to investigate the relationship between the main variables and participants' demographic and background characteristics. In this regard, the results indicated that regardless of demographic characteristics, nurses need to receive training on spiritual care, and it seems that individuals who felt the need for training sought more knowledge. Several studies have pointed out that nursing education lacks remarkable approaches to providing comprehensive end-of-life care for patients. In order to alleviate this problem, the nursing curriculum might be revised, and the nursing faculty should obtain sufficient knowledge to train students on such care [3, 27, 39].

Another result showed that, in addition to the need to receive training, nurses who had more experience with patients who had spiritual needs tended to score better on attitude assessments. In a study, senior and more clinically experienced nurses demonstrated better spiritual care behaviors than their younger and less experienced peers. Consequently, it has been recommended that hospitals hire more experienced nursing staff to promote the

level of comprehensive health care. Moreover, younger and less experienced nurses should be trained in spiritual care to facilitate their behaviors [3, 40, 41].

Furthermore, the results of the present study showed a statistical relationship between the mean score of the nurses' religious attitude and the categories of 'source of identifying patient's spiritual needs,' 'feeling the need to receive training on spiritual care,' and 'receiving training on issues related to spiritual care.' Khalajinia et al. reported that to clarify the role of spirituality in nursing and its place in nursing care, there is a need for greater awareness of the concepts of spirituality and spiritual health, as well as the distinction between religion and spirituality [42]. In another study, it was stated that spirituality and religion are synonymous for some individuals and may overlap in practice. Many people consider themselves spiritual, even if they are not religious, and nurses may encounter patients who have no religious affiliation but still express spiritual needs, expecting nurses to address them [43]. Although the provision of spiritual care by nurses in different contexts shares common aspects regardless of religious and cultural boundaries, it is essential for nurses to be aware of the various rituals patients may perform based on their spiritual or religious beliefs. Simply knowing the dominant religion of a society is not enough to provide comprehensive spiritual care [42].

## Conclusion

The study found that nurses' knowledge and attitude toward providing spiritual care to end-of-life patients are insufficient. However, their religious attitude scores were satisfactory. Improving the quality of spiritual care provided to such patients requires revising the nursing college curriculum and emphasizing retraining and in-service courses at the hospital level.

## Limitations

Since the current study was conducted during the COVID-19 pandemic, the study's results may have been affected by the prevailing conditions. Furthermore, the study did not investigate how nurses' social and cultural differences impact the primary variables. It is recommended to conduct further research under different conditions to address these limitations and investigate additional factors that may affect the outcomes.

## Ethical Considerations

### Compliance with ethical guidelines

This study was approved by the Research Ethics Committee of [Islamic Azad University, Kerman Branch](#) (Code: IR.IAU.KERMAN.REC.1399.009). The electronic consent form to participate in the study and data publication was completed by the participants, who were assured that their information would remain confidential and anonymous and would be used only for research purposes.

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### Authors' contributions

Conceptualization: Maryam Khandan, and Aminreza Askarpoorkabir; Data curation: Aminreza Askarpoorkabir; Formal analysis: Maryam Khandan; Funding acquisition: Maryam Khandan; Investigation: Maryam Khandan; Software: Aminreza Askarpoorkabir; Supervision: Maryam Khandan; Writing the original draft: Maryam Khandan; Methodology, project administration, resources, validation and visualization, review and editing: All authors.

### Conflict of interest

The authors declared no conflict of interest.

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