Original Manuscript

Nursing Ethics
1–13

10.1177/0969733016650993
nej.sagepub.com
SAGE

Spiritual well-being and moral distress among Iranian nurses

Mohammad Ali Soleimani
Qazvin University of Medical Sciences, Iran

Saeed Pahlevan Sharif
Taylor's University, Malaysia

Ameneh Yaghoobzadeh and Mohammad Reza Sheikhi
Qazvin University of Medical Sciences, Iran

Bianca Panarello
Concordia University, Canada

Ma Thin Mar Win
National University of Singapore (NUS), Singapore

Abstract

Background: Moral distress is increasingly recognized as a problem affecting healthcare professionals, especially nurses. If not addressed, it may create job dissatisfaction, withdrawal from the moral dimensions of patient care, or even encourage one to leave the profession. Spiritual well-being is a concept which is considered when dealing with problems and stress relating to a variety of issues.

Objective: This research aimed to examine the relationship between spiritual well-being and moral distress among a sample of Iranian nurses and also to study the determinant factors of moral distress and spiritual well-being in nurses.

Research design: A cross-sectional, correlational design was employed to collect data from 193 nurses using the Spiritual Well-Being Scale and the Moral Distress Scale-Revised.

Ethical considerations: This study was approved by the Regional Committee of Medical Research Ethics. The ethical principles of voluntary participation, anonymity, and confidentiality were considered.

Findings: Mean scores of spiritual well-being and moral distress were 94.73 $\pm$ 15.89 and 109.56 $\pm$ 58.70, respectively. There was no significant correlation between spiritual well-being and moral distress ($r = -.053$, $p = .462$). Marital status and job satisfaction were found to be independent predictors of spiritual well-being. However, gender and educational levels were found to be independent predictors for moral distress. Age, working in rotation shifts, and a tendency to leave the current job also became significant after adjusting other factors for moral distress.

Discussion and conclusion: This study could not support the relationship between spiritual well-being and moral distress. However, the results showed that moral distress is related to many elements including individual ideals and differences as well as organizational factors. Informing nurses about moral distress and

Corresponding author: Ameneh Yaghoobzadeh, Social Determinants of Health Research Center, Qazvin University of Medical Sciences, Qazvin 34147, Iran.
Email: a.yaghoobzadeh@yahoo.com

its consequences, establishing periodic consultations, and making some organizational arrangement may play an important role in the identification and management of moral distress and spiritual well-being.

Keywords
Moral distress, nurses, spiritual well-being

Introduction

Growing development and changes of the modern world in health affect nursing ethics and cause increased public concern related to moral dilemmas.[1] As nurses spend more time to communicate with patients, the importance of moral care will be as important as the technical aspects of nursing.[2] Indeed, there are certain ethical situations in healthcare that nurses encounter that are complex and that require a collaborative approach to solve.[3] Some examples of these types of distressing situations include prolonged and continuous contact with critically ill and near-death patients, increased responsibilities, lack of adequate recreational facilities, decreased clinical knowledge, diminished support from leaders, difficult decision-making in a critical situation, mistakes in caring and treatment, futile care, lack of respect from doctors, and finally, providing unrealistic and inadequate information about problems and prognosis of patients' clinical condition.[4] Nurses face these pressures on a daily basis, and unfortunately, they often do not have enough support and guidance to ensure that they react appropriately.[1] A review of the current literature revealed that nurses involved in an ethical dilemma are often confused due to some barriers that exist, such as decreased clinical capabilities or professional competence, or a lack of medical care providers and hospital policies.[5]

Moral distress is one of the most damaging ethical issues in nursing.[6] For the first time in 1984, Andrew Jameton defined moral distress as a "painful feeling or mental imbalance caused by inabilities of a person to perform the duties due to internal or external restrictions."[7] According to this definition, a person is familiar with his or her personal and professional work goals, but he or she cannot attain them.[8] Moral distress creates some symptoms such as sadness, deprivation, and anxiety and in the long-term causes dissatisfaction and burnout among nurses.[9] These outcomes not only affect nurses but also influence patients due to the fact that nurses provide poor and inadequate care, which consequently leads to an increased patients' hospital stay.[10]

Moral distress can be influenced by individual and organizational factors. Results of some studies showed that moral distress has a negative association with age, income, and job experience. Also, moral distress is significantly related to educational level and a tendency to leave the job.[11–13] However, studies in intensive care units (ICUs) and clinical settings failed to find a significant difference between severity and frequency of moral distress in both men and women.[14,15] However, another study reported higher moral distress in women than in men.[14] Results of several studies reported that moral distress has a positive correlation with burnout[13,16,17] and a negative correlation with job satisfaction.[11] Conflicting results have been reported regarding the severity of moral distress in different wards, but the most severity in moral distress and the least severity in moral distress were in the ICUs and surgical sections, respectively.[18,19]

Moral distress has negative consequences on nurses' health status.[20] Public health problems, distancing and avoidance strategies toward patients, leaving the current job, losing veteran nurses from the workforce, and decreasing the quality of patient care are among these consequences.[21] Nightmares, insomnia, heart palpitations, and neck pain have all been reported as negative personal symptoms of moral distress.[20] Anxiety and frustration, intolerance, feelings of worthlessness, anger, and depression also appear to have a negative impact on nurses' mental health. Therefore, stressful conditions like moral distress predispose nurses to mental problems, decreased physical strength, and increased physical symptoms.[22]

While factors such as lack of support from superiors, absence of time management, and legal and medical power structure can increase moral distress, there are agents that could greatly reduce or modify moral distress.[23] Implementation of a moral education program in hospitals[24] and identifying the factors specific to moral distress in order to prevent or decrease distress are among the factors that can contribute to reducing nurses' moral distress.[25] Spirituality and spiritual well-being is another factor that can have a great influence on reducing negative consequences of moral distress and improve one's quality of life.[26] Indeed, spirituality is one of the concepts which plays an important role in coping with stress.[27–30]

Spiritual well-being is one of the four aspects of human health that includes both religious and existential dimensions. While religious well-being means being satisfied in relation to a superior power[31] that integrates internal body forces, existential well-being is trying to understand the meaning and purpose of life.[32] In other words, spiritual well-being refers to the experience of positive feelings as a result of one's ability to experience meaning and purpose in life through his or her relation and connectedness with the self, with others, and with a higher power. These feelings are achieved through dynamic processes that involve the cognitive, functional, and emotional domains.[33] This aspect of well-being is not limited to prayer, mental mood, and betterment of disease and replacement of it for conventional medical treatments or for complementary medicine. In fact, it means that spiritual vision, values, beliefs, and behaviors affect the biochemistry and physiology of the body which is known as spiritual well-being.[34]

In Islam,

> spirituality is not separate from religion; it is rather its inner dimension. According to this view, religion as it is expressed in prescribed religious activities provides the roadmap to one's ultimate purpose in life, that is, to live continuously in relationship with God, the Creator. Thus, the separation between religion and spirituality, most likely, is not accepted in the Islamic way of life.[35]

The first level of faith and one of the foundations of spirituality in Islam is conforming to be in fellowship with God. Similar to the Western spirituality, to the Islamic spiritual mind, the connection with God is of ultimate value, regardless of whether it leads to better mental health.

There are good theoretical supports for the link between both dimensions of spiritual well-being and mental health. Attachment theory suggests that secure attachment to God has a positive influence on health and well-being.[36] This can be because in times of stress and critical situations, people look at God as a being who protects and cares them. Thus, they experience more secure and less stress.[37] A conspicuous number of studies have shown that spirituality in terms of a secure relationship with God can lead to people's mental health (e.g. less depression,[38] less loneliness,[39] and greater psychosocial competence).[40] A close connection to God can also help people to cope with stressful situations (e.g. transplant surgery,[41] medical illness,[42] end-of-life care dilemmas and moral distress,[43] and natural disasters[44]).

Apart from closeness to God, spirituality for some people involves a framework that gives meaning to their lives and provides reasons and direction for living.[45–47] The literature review by Hill and Pargament[37] revealed three theoretical grounds supporting the relationship between spirituality and mental health from this perspective. First, to a spiritual person, life and many of its aspects including physical and psychological health are sacred and should be treated with care and respect.[48] Second, "religion and spirituality frameworks can provide people with a sense of their ultimate destinations in life."[37] This sense can contribute to their personal coherence, empower them, and provides stability, support, and direction in critical life events which in turn improves their physical and mental health.[49] Third, spirituality frameworks provide not only a sense of ultimate destinations in life but also the roadmap to reach to these destinations. Indeed, people with stronger spiritual frameworks have access to more spiritual and religious coping strategies in the times facing a stressful situation. These coping strategies can reduce their stress and enhance their psychological and physical health.[47]

Research has shown that spiritual well-being increases nurses' adaptation abilities and enhances physical, social, and mental aspects of health.[27] Knowledge about the positive effects of spiritual well-being in clinical areas has been helpful for nurses' quality of life. Nurses with higher level of spiritual well-being make better treatment decisions, choose appropriate interventions more often, and evaluate the effectiveness of these interventions with more accuracy.[31] In fact, these positive effects of spiritual well-being may lead to a sense of personal satisfaction and an enhanced sense of well-being.[50]

Considering that nurses are the largest human resource of the healthcare system who play a major role in the provision of health services, it is essential that they should be able to perform to the best of their ability. However, it is unfortunate that several nurses face morally distressing situations on a day-to-day basis. Being treated inadequately by colleagues, having to perform unnecessary tests, treating patients to meet the needs of the organization, and prolonging a patient's death without proper consent can cause nurses to experience physical and psychological problems.[51] Thus, it is necessary to take into account the importance of spiritual well-being as an aspect of well-being, and its' impact on physical and mental health, and on quality of life.[52]

Although there is a substantial literature on the relationship between spirituality and many aspects of mental health.[37,53–56] Little is known about the link between spiritual well-being and moral distress. Moreover, most of the studies on spirituality and spiritual well-being in a health context have been conducted in Western countries, and studies concerning the relationship between spirituality and mental health in Islamic contexts are scarce.[35] Thus, the main objective of this research is to examine the relationship between spiritual well-being and moral distress in nurses in Iran as an Islamic context. We hypothesize that there is a negative relationship between spirituality and moral distress in a sample of Iranian nurses. The second objective is to determine the factors (i.e. socio-demographic factors, job satisfaction, and tendency to leave) that predict their moral distress and spiritual well-being.

Methods

Design

A descriptive, cross-sectional, correlational design was used to examine the relationship between spiritual well-being and moral distress. The study's sample consisted of nurses who worked in different wards of hospitals (cardiac care unit, ICU, medical, surgical, operation room, etc.) between February and May 2015. The overall response rate was 81%. In order for a participant to be included in this study, he or she was required to meet two criteria. First, he or she must have been working as a nurse for a minimum of 6 months. Second, he or she must not have a history of severe stress (death of relatives, experiencing an accident resulting in the death of a family member, divorce, etc.).

Given that no studies have examined the correlation between spiritual well-being and moral distress, we conducted a pilot study with a sample of 25 nurses. ($r = -.219$, confidence interval (CI) = 95% and power = 80%). Accordingly, a minimum sample size of 193 participants was estimated. The 25 nurses from the pilot project were analyzed with the final sample.[57]

Instruments

The questionnaire consisted of three parts: (1) basic questions regarding demographic and work-related variables, (2) the Spiritual Well-Being Scale (SWB-S), and (3) The Moral Distress Scale-Revised (MDS-R). Questions in section 1 of the questionnaire were used to gather information about each nurse's age, sex, marital status, educational level, job experiences (years), workplaces (wards), monthly income from nursing, shift work, job satisfaction, and probability of leaving the job. Also, job satisfaction and a tendency to leave the job were measured by an analogue scale ranging from 0 to 10.

SWB-S. This 20-item scale was designed by Paloutzian and Ellison in 1982. This scale is a general indicator of perceived well-being which may be used for the assessment of both individual and congregational spiritual well-being. It provides an overall measure of the perception of spiritual quality of life and consisted of two subscales: religious and existential well-being. The religious well-being subscale (10 items) provides a self-assessment of one's relationship with God, while the existential well-being subscale (10 items) gives a self-assessment of one's sense of life purpose and life satisfaction.[58] SWB-S is a six-choice Likert-type scale that ranged from completely disagree (1) to completely agree (6). A reversed scoring method was used for negative questions (items 6–21, 28–32, and 34–50). The range of scores for each of the religious and existential subscales was between 10 and 60. A higher score indicated higher religious and existential health. In a previous study, validity and reliability of the Paloutzian and Ellison's SWB-S has been well established. The Cronbach's alpha coefficient for the SWB-S was reported as more than .8.[59] For this study, internal consistency reliability, using Cronbach's alpha, was .91.

MDS-R. This scale, which consisted of 21 items, measures an individual's perceptions to a situation based on (1) intensity of moral distress and (2) frequency of the encountered situation. It includes six parallel versions, three of which focus on adult clinical settings (nurses, physicians, and other healthcare professionals) and three that focus on pediatric clinical settings (nurses, physicians, and other healthcare professionals). For the purpose of this study, the adult version was used. The MDS-R includes two subscales: (1) frequency that ranges from 0 (never) to 4 (very frequently) and (2) intensity that ranges from 0 (none) to 4 (great extent). Data were then computed into a composite score of actual moral distress using a two-part procedure. First, the frequency score is multiplied by the intensity score ($f \times i$) for each item, and values can range from 0 to 16. Items that are less distressing have low ($f \times i$) scores versus more distressing items, which have higher ($f \times i$) scores.[60] Reporting composite scores allows us to identify individual items or situations that are distressing. Second, the composite or actual moral distress score was obtained by summing each item's ($f \times i$) score, which resulted in a range of 0–336, where less actual distress was indicated by low-composite scores and more actual moral distress was indicated by higher composite scores. Content validity of the MDS-R demonstrated 88% inter-rater agreement and full agreement on 19 of 21 items, resulting in the rewording of 1 item, elimination of another item, and creation of a new item. Internal consistency was established via Cronbach's alpha for nurses (.89), physicians (.67−.88), and all participants combined (.88).[61] For this study, internal consistency using Cronbach's alpha was .88.

Ethical considerations

This study was approved by the Regional Committee of Medical Research Ethics. All participants were informed about the voluntary nature of their participation, and they were told that they were free to withdraw from the study at any time. We also guaranteed the confidentiality of the participants' personal information. In addition, we obtained a written informed consent from each participant. Moreover, participants were ensured that the study findings would be reported and published anonymously.

Statistical analysis

The Statistical Package for Social Sciences (SPSS), version 23.0, was used for data analysis. For continuous variables such as age, income, and job experiences, descriptive statistics were calculated and reported as means and standard deviations. Categorical variables such as sex, marital status, and educational levels are presented as frequencies and percentages (%). The relationship between spiritual well-being and moral distress was assessed using correlation analysis. Then, univariate analyses of variance (ANOVAs) were performed to compare the means of spiritual well-being and moral distress among demographic and

Table 1. Demographic characteristics of the study participants ($N = 193$).

Variable		*n* (%)
Sex	Male	36 (18.7)
	Female	157 (81.3)
Marital status	Single	66 (34.2)
	Married	125 (64.8)
	Widow	2 (1.0)
Educational level	Associate's degree	16 (8.3)
	BSc	160 (82.9)
	MSc and above	17 (8.8)
Workplaces	CCU	12 (6.2)
	ICU	58 (30.1)
	Emergency	20 (10.4)
	Medical	48 (24.9)
	Surgical	20 (10.4)
	Pediatric	6 (3.21)
	Dialysis	3 (1.6)
	Nursing office as supervisor	8 (4.1)
	Operation room	18 (9.3)
Shift work	Morning fix	30 (15.5)
	Evening fix	11 (5.7)
	Night fix	25 (13)
	Rotation	127 (65.8)
	Mean (SD)	Range
Age (years)	34.06 (8.07)	20–55
Job experiences (years)	10.83 (8.29)	1–40
Income	1790,414.50 (601,234.69)	1,000,000–4,500,000
Job satisfaction	5.65 (2.44)	0–10
Tendency to the leave the job	4.63 (2.896)	0–10
Total SWB	94.73 (15.89)	48–120
Total MDS-R (the mean does not fall within the range)	109.56 (58.70)	12–292
MDS-R (*frequency*)	42.25 (14.32)	10–77
MDS-R (*level of disturbance*)	46.43 (18.08)	11–84

CCU: cardiac care unit; ICU: intensive care unit; SD: standard deviation; SWB: spiritual well-being; MDS-R: Moral Distress Scale-Revised.

work-related factors. The predictors associating spiritual well-being and moral distress were determined using a general linear model with Bonferroni correction for pair-wise comparisons to calculate multivariate-adjusted means for spiritual well-being and moral distress scores across demographic and work-related factors. The multivariate-adjusted models included age, monthly personal income, sex, marital status (single, divorced, or married), educational level (associate degree, or bachelor degree or more), workplaces, working in shifts, job satisfaction, and tendency to leave job. All statistical tests were two-tailed, and a p-value of equal to or less than .05 was considered significant.

Results

Table 1 shows the participant's demographic and work-related characteristics. The sample was mainly female ($n = 157$, 81.3%). Among the female participants, 93 (59.2%) reported their marital status as married, while 62 (39.5%) female nurses indicated that they were single. With regard to educational level, 83% of the sample held bachelor degrees. The results showed that there was a very weak

Table 2. Predictors for spiritual well-being.

		Mean (SD)	Unadjusted *p*-value	Adjusted *p*-value
Sex	Male	95.44 (15.40)	.766	.428
	Female	94.56 (16.04)		
Marital status	Single	90.61 (16.94)	.03	.007
	Married	96.95 (14.7)		ref
	Widowed	92 (32.52)		.902
Educational level	Associate's degree	95.62 (20.17)	.36	.819
	BSc	95.2 (15.53)		.52.
	MSc and above	89.47 (14.87)		ref
Workplaces	CCU	95.83 (16.38)	.092	.726
	ICU	98.72 (14.69)		.922
	Emergency	91.85 (12.89)		.198
	Medical	92.52 (15.11)		.387
	Surgical	90.5 (17.25)		.110
	Pediatric	82.16 (15.21)		.05
	Dialysis	84.66 (28.37)		.112
	Nursing office as supervisor	98.75 (14.61)		.814
	Operation room	99 (18.83)		ref
Shift work	Morning fix	97.93 (15.81)	.05	.746
	Evening fix	83.36 (15.37)		.269
	Night fix	92.08 (14.57)		1.000
	Rotation	95.48 (15.88)		ref
	Unadjusted *p*-value	Adjusted *p*-value	*b* (95% CI)	*b* (95% CI)
Age	.267	.946	.158 (−.12, −.44)	.011 (−.31, −.33)
Income	.98	.661	4.9 (.00, −.00)	−9.2 (−5.08, −3.23)
Job satisfaction	.008	.042	1.25 (.33, −2.17)	1.09 (.04, −2.15)
Tendency to leave job	.074	.434	−.694 (−1.45, −.07)	−.337 (−1.18, −.51)

SD: standard deviation; *b*: regression estimate; CI: confidence interval; CCU: cardiac care unit; ICU: intensive care unit.

negative relationship between spiritual well-being and moral distress which was not statistically significant ($r = -.053$, $p = .462$).

Tables 2 and 3 provide detailed information about the univariate results and general linear modeling results for spiritual well-being and moral distress, respectively. The results demonstrated that being single was associated with less spiritual well-being compared to married counterparts ($p = .007$). Furthermore, the higher the job satisfaction levels, the higher the spiritual well-being scales ($b = 1.09$, 95%, 95% CI = .04–2.15, $p = .042$). No other demographic and work-related predictors in our model showed a significant relationship with spiritual well-being.

For moral distress, gender and educational level were independent predictors for moral distress scores. In our sample, female nurses had higher levels of moral distress than males ($p < .001$). In addition, associate degree holders reported less moral distress than nurses with master degrees and above ($p = .047$). The predictors, which became significant after adjusting for other factors, were age, tendency to leave job, and working in shifts.

Discussion

This study was conducted in order to examine the relationship between spiritual well-being and moral distress as well as to identify the determinant factors of spiritual well-being and moral distress in a sample of Iranian nurses. The study could not find any significant relationship between spiritual well-being and moral

Table 3. Predictors for moral distress.

Variable		Mean (SD)	Unadjusted *p*-value	Adjusted *p*-value
Sex	Male	84.66 (40.91)	.004	.001
	Female	115.28 (60.74)		
Marital status	Single	104.61 (51.72)	.7	.339
	Married	112.12 (61.25)		ref
	Widowed	114 (141.42)		.767
Educational level	Associate's degree	69 (33.67)	.012	.047
	BSc	114.17 (59.69)		.523
	MSc and above	104.41 (54.67)		ref
Workplaces	CCU	103.41 (73.89)	.045	.2
	ICU	118.86 (69.62)		.67
	Emergency	109.55 (45.58)		.848
	Medical	94.75 (47.62)		.167
	Surgical	102.80 (48.16)		.944
	Pediatric	136.83 (47.61)		.572
	Dialysis	210 (74.34)		.916
	Nursing office as supervisor	119 (57.66)		.778
	Operation room	100.77 (45.78)		ref
Shift work	Morning fix	96.2 (46.53)	.072	.274
	Evening fix	79 (32.58)		.21
	Night fix	127 (71.18)		.01
	Rotation	111.94 (59.27)		ref
	Unadjusted *p*-value	Adjusted *p*-value	*b* (95% CI)	*b* (95% CI)
Age	.214	.037	.65 (−38, −1.68)	1.15 (.07, −2.24)
Income	.762	.633	−2.15 (.00, −.00)	3.47 (−1.08, −1.78)
Job satisfaction	.174	.124	−2.37 (−5.8, −1.06)	−2.86 (−6.51, −.78)
Tendency to leave job	.134	.012	−2.15 (−4.96, −.67)	−3.78 (−6.71, −.85)

SD: standard deviation; *b*: regression estimate; CI: confidence interval; CCU: cardiac care unit; ICU: intensive care unit.

distress. The literature review shows that studies on spiritual well-being-moral distress link are scarce. To the best of our knowledge, there is only one study, conducted by Elpern et al.,[62] that reported an adverse relationship between moral distress and nurses' spirituality. However, the small sample size of 28 limits the generalizability of their findings.

The results of this study showed that Iranian nurses reported moderate levels of spiritual well-being. This is similar to Zare and Jahandideh[63] who reported moderate to high levels of spiritual well-being among Iranian nurses. These findings are somewhat expected for people in Iran due to the fact that spirituality and spiritual values have a special place in their religion, Islam.[64] Also, spirituality helps nurses to achieve inner peace and increases their ability to effectively manage stress. These spiritual behaviors contribute to the fact that nurses have a strong commitment to ethical practice.[65]

This study also indicates that being single was associated with less spiritual well-being compared to married counterparts. These findings are similar to the findings of another study that reported spiritual well-being of married people are higher than singles.[59] However, other research has found conflicting reports regarding these associations.[66] Indeed, spirituality is a critical and a positive component in marital life; individuals with high spiritual well-being are more committed to their spouse and consider this commitment as a spiritual purpose.[67]

Furthermore, this study identified that job satisfaction is a factor that may influence an individual's spiritual well-being. This means that the higher the job satisfaction levels, the higher the spiritual well-

being. This is congruent with the results of other studies. For example, Ravari et al.[68] found that spirituality is considered to be a key factor in job satisfaction as well as in achieving happiness. In addition, Taylor and Carr[69] revealed that a nurse's spirituality can affect his or her motivation, job satisfaction, and his or her ability to provide nursing services and care. In other words, nurses who feel less spiritual show greater unethical behaviors. Thus, enhancing spirituality among employees can lead to increased job satisfaction. Spirituality and job satisfaction are inevitable aspects of life among employees. If the organization can promote health and spirituality, it can increase the level of the staff's satisfaction, reduce the levels of stress, and decrease the experience of any psychological pressure.[70]

The findings of this study also emphasized the low level of moral distress found in general. In contrast to this study, some studies showed high levels of moral distress among nurses.[11,13] Abbaszadeh et al.[14] reported moderate levels of moral distress in nurses. Studies have demonstrated that the failure to address moral distress can adversely affect healthcare professionals' physical, emotional, and behavioral well-being and that it may impact the degree of care provided.[10,71] On a daily basis, nurses face several obstacles and difficulties due to the nature of their job. Furthermore, organizational rules, the obstacles nurses face when caring for patients and the lack of patient's needs being met, make it difficult for nurses to care for their patients and to cope with these daily stressors. These factors threaten the health of nurses and put them at risk for experiencing moral distress.[19] In this study, low moral distress can be attributed to sampling and work environments (wards). Due to the fact that our study consisted of few ICU nurses, it is possible that the nurses sampled here face fewer ethical problems compared to those who work in, for example, ICU, which may explain why they demonstrated lower levels of moral distress.

The findings of this study also indicate that male and female nurses experienced different levels of moral distress, with female nurses generally reporting higher overall levels of moral distress. Similar to this study, O'Connell[72] reported that females had statistically higher moral distress scores than males. Other studies have identified that there are no significant differences in moral distress between men and women.[73] Perhaps, this can be due to the emotionally sensitive situations experienced by women, which can in turn affect them more and increase their level of distress.

Moreover, positive correlations were found between moral distress and educational level, meaning that nurses with associate degrees show lower levels of moral distress than those who have reached a higher level of education. Hamaideh[11] also found that nurses with higher educational levels demonstrate higher levels of moral distress. In contrast, Corley et al.[74] did not find a positive correlation between moral distress and educational level. This finding can be explained by the fact that nurses who have higher educational levels usually have to make decisions regarding patient care (which often involve ethical conflicts), more often than nurses who have lower educational levels.[11]

A nurse's age was a significant predictor of moral distress. Although different studies have suggested that there is a negative correlation between age and moral distress,[11,18] in this study, age showed to be an important factor in moral distress.[43,75] Accordingly, as a nurse gets older, he or she gains more experience in his or her job, which may allow him or her to develop the appropriate skills needed to adapt and cope with distressing situations. Unfortunately, they may experience higher levels of moral distress as a result.[75]

One's tendency to leave his or her job was another predictor of moral distress. This is congruent with the studies that have found one's intention to leave his or her job is a predictor of moral distress.[76,77] It is believed that leaving one's job is affected by factors such as management strategies and lack of workforce, which all increase moral distress and possibly cause nurses to quit their job.[78]

Moreover, working in shifts was found to be the third predictor of moral distress. Ebrahimi et al.[79] reported that type of shift work was significantly related to the level of moral distress experienced by nurses. However, in an ICU, Abbas Zadeh et al.[80] found that there is no relationship between moral distress and dominant shifts. Keighobadi et al.[19] stated that providing nurses with the opportunity to rest during shifts,

reducing their number of working hours in the evening and night shifts, and making holiday time to rest before and after their shift can help nurses experience less stress.

Conclusion

The findings from this study could not support the relationship between spiritual well-being and moral distress. However, the results showed that moral distress is related to many elements including individual ideals and differences, organizational elements, and other unknown factors. It is essential to provide nurses with guidelines regarding the factors that may predispose one to moral distress in order to effectively decrease the negative consequences that it may have for nurses.[16] Thus, providing training to nurses, establishing periodic consultations, and making work arrangements, such as changing wards, can be effective in helping one manage stressful situations and may provide nurses with the opportunity to work in a less morally distressing environment.

Moral distress has implications for nurses and other healthcare professionals. Indeed, morally distressing situations have a negative impact on nurses' quality of care, motivation, and job satisfaction. This in turn may lead to physical and psychological illness, burnout, and staff turnover.[81]

Acknowledgements

The authors would like to express their gratitude to the nurses who bravely participated in this study.

Declaration of conflicting interests

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The project was supported by the social determinants of Health Research Center, Qazvin University of Medical Sciences, Qazvin, Iran and an extension of Taylor's University Research Grant (TRGS/ERFS/1/2015/TBS/014).

Funding

The project was supported by the social determinants of Health Research Center, Qazvin University of Medical Sciences, Qazvin, Iran.

References

1. Schluter J, Winch S, Holzhauser K, et al. Nurses' moral sensitivity and hospital ethical climate: a literature review. *Nurs Ethics* 2008; 15: 304–321.
2. Borhani F, Abbas Zadeh A, Kohan M, et al. Comparison of ethical reasoning abilities in dealing with ethical dilemmas in nurses and nursing students of Kerman University of Medical Sciences. *Med Ethics Hist* 2010; 3: 71–81.
3. Habibzadeh H, Ahmadi F and Vanaki Z. Ethics in professional performance of Iranian nurses. *Med Ethics Hist* 2010; 3: 26–36.
4. Pak HM, Ahmadi F and Anoosheh M. Spiritual beliefs and quality of life: a qualitative research about diabetic adolescent girls' perception. *Koomesh* 2010; 12: 144–151.
5. Weaver K and Morse JM. Pragmatic utility: using analytical questions to explore the concept of ethical sensitivity. *Res Theory Nurs Pract* 2006; 20: 191–214.
6. Gallagher A. Moral distress and moral courage in everyday nursing practice. *Online J Issue Nurs* 2011; 16.
7. Ulrich CM, Hamric AB and Grady C. Moral distress: a growing problem in the health professions? *Hastings Cent Rep* 2010; 40: 20–22.
8. Urden LD, Stacy KM and Lough ME. *Critical care nursing: diagnosis and management*. Amsterdam: Elsevier Health Sciences, 2014.

9. Hamric AB. Empirical research on moral distress: issues, challenges, and opportunities. *Hec Forum* 2012; 24: 39–49.
10. Epstein EG and Hamric AB. Moral distress, moral residue, and the crescendo effect. *J Clin Ethics* 2009; 20: 330–342.
11. Hamaideh SH. Moral distress and its correlates among mental health nurses in Jordan. *Int J Ment Health Nu* 2014; 23: 33–41.
12. Deady R and McCarthy J. A study of the situations, features, and coping mechanisms experienced by Irish psychiatric nurses experiencing moral distress. *Perspect Psychiatr C* 2010; 46: 209–220.
13. Ohnishi K, Ohgushi Y, Nakano M, et al. Moral distress experienced by psychiatric nurses in Japan. *Nurs Ethics* 2010; 17: 726–740.
14. Abbaszadeh A, Borhani F, Sharif F, et al. The relationship between nurse's distress and end of life decision making in ICU. *J Med Ethics* 2013; 6: 177–183.
15. Beikmoradi A, Rabiee S, Khatiban M, et al. Nurses distress in intensive care unit: a survey in teaching hospitals. *Iran J Med Ethics Hist Med* 2012; 5: 58–69.
16. Borhani F, Esmaeli Abdar M, Razban F, et al. Moral distress in the nursing and relationship with job burnout. *J Med Ethics* 2012; 7: 123–144.
17. Shakeriniya I. The relationship between ethical conflicts, moral distress, and occupational stress in nurses. *Iran J Med Ethics Hist Med* 2010; 4: 56–69.
18. Mohammadi S, Borhani F, Roshanzadeh L, et al. Moral distress and compassion fatigue in patient care: a correlational study on nurses. *Iran J Med Ethics Hist Med* 2014; 7: 69–79.
19. Keighobadi F, Sadeghi H, Keighobadi F, et al. The relationship between moral distress and emotional exhaustion in nurses. *Iran J Med Ethics Hist Med* 2014; 7: 36–47.
20. McClendon H and Buckner EB. Distressing situations in the intensive care unit: a descriptive study of nurses' responses. *Dimens Crit Care Nurs* 2007; 26: 199–206.
21. Lerkiatbundit S and Borry P. Moral distress part I: critical literature review on definition, magnitude, antecedents and consequences. *Thai J Pharm Pract* 2009; 1: 3–10.
22. Pijl-Zieber E, Hagen B, Armstrong-Esther C, et al. Moral distress: an emerging problem for nurses in long-term care? *Qual Ageing* 2008; 9: 39–48.
23. Abbaszadeh A, Borhani F, Foroghameri G, et al. The relationship among moral distress and work engagement in nurses: a descriptive, correlational study. *J Med Ethics* 2013; 7: 33–53.
24. Borhani F, Abbaszadeh A, Arab M, et al. Moral distress among nurses working in teaching hospitals in Jiroft. *J Med Ethics* 2013; 7: 135–157.
25. Range LM and Rotherham AL. Moral distress among nursing and non-nursing students. *Nurs Ethics* 2010; 17: 225–232.
26. Taghdici MH, Doshmangir P, Dehdari T, et al. Influencing factors on healthy lifestyle from viewpoint of elderly people: qualitative study. *Iran J Age* 2013; 7: 47–58.
27. Allahbakhshian M, Jaffarpour M, Parvizy S, et al. A Survey on relationship between spiritual wellbeing and quality of life in multiple sclerosis patients. *Zahedan J Res Med Sci* 2010; 12: 29–33.
28. Graham S, Furr S, Flowers C, et al. Research and theory religion and spirituality in coping with stress. *Counsel Val* 2001; 46: 2–13.
29. Thune-Boyle IC, Stygall JA, Keshtgar MR, et al. Do religious/spiritual coping strategies affect illness adjustment in patients with cancer? A systematic review of the literature. *Soc Sci Med* 2006; 63: 151–164.
30. Chang B-H, Noonan AE and Tennstedt SL. The role of religion/spirituality in coping with caregiving for disabled elders. *Gerontologist* 1998; 38: 463–470.
31. Asarrodi AG, Golafshani A and Akaberi A. The relationship between spiritual health and quality of life in nurses. *J North Khorasan Univ Med Sci* 2011; 3: 81–88.

32. Craven RF. *Fundamentals of nursing: human health and function* (Craven and Hirnle's nursing fundamentals and procedures online). 6th ed. Philadelphia, PA: Lippincott Williams & Wilkins, 2009.
33. Abbasi MAF, Shamsi E, Naserirad M, et al. Conceptual and operational definition of spiritual health: a methodological study. *J Med Ethics* 2013; 6: 11–44.
34. Marandi A and Azizi F. Status, definition and difficulties in establishing the concept of spirituality well-being in Iranian-Islamic society. *J Med Ethics* 2011; 4: 11–21.
35. Ahmad F, Binti Muhammad M and Abdullah AA. Religion and spirituality in coping with advanced breast cancer: perspectives from Malaysian Muslim women. *J Relig Health* 2011; 50: 36–45.
36. Miner MH. Healthy questing and mature religious reflection: critique, antecedents, and relevance of attachment theory? *J Psychol Theol* 2008; 36: 222–233.
37. Hill PC and Pargament KI. Advances in the conceptualization and measurement of religion and spirituality: implications for physical and mental health research. *Am Psychol* 2003; 58(1): 64–74.
38. Maton KI. The stress-buffering role of spiritual support: cross-sectional and prospective investigations. *J Sci Stud Relig* 1989; 28: 310–323.
39. Kirkpatrick LA, Kellas S and Shillito D. Loneliness and perceptions of social support from God. *Paper presented at the 101st annual convention of the American Psychological Association*, Toronto, ON, Canada, August 1993.
40. Pargament KI, Kennell J, Hathaway W, et al. Religion and the problem-solving process: three styles of coping. *J Sci Stud Relig* 1988; 27: 90–104.
41. Tix AP and Frazier PA. The use of religious coping during stressful life events: main effects, moderation, and mediation. *J Consult Clin Psych* 1998; 66: 411–422.
42. Koenig HG, Pargament KI and Nielsen J. Religious coping and health status in medically ill hospitalized older adults. *J Nerv Ment Dis* 1998; 186: 513–521.
43. Ferrell BR. Understanding the moral distress of nurses witnessing medically futile care. *Oncol Nurs Forum* 2006; 33(5): 922.
44. Smith BW, Pargament KI, Brant C, et al. Noah revisited: religious coping by church members and the impact of the 1993 Midwest flood. *J Community Psychol* 2000; 28: 169–186.
45. Allport Gordon W. *The individual and his religion: a psychological interpretation*. New York: Macmillan, 1950.
46. McIntosh DN. Religion-as-schema, with implications for the relation between religion and coping. *Int J Psychol Religion* 1995; 5: 1–16.
47. Pargament K. *The psychology of religion and coping: theory, research, practice*. New York: Guilford Press, 1997.
48. Pargament KI and Mahoney A. Spirituality: discovering and conserving the sacred. In: Snyder CR and Lopez SJ (eds) *Handbook of positive psychology*. New York: Oxford University Press, 2002, pp. 646–659.
49. Emmons RA. *The psychology of ultimate concerns: motivation and spirituality in personality*. New York: Guilford Press, 1999.
50. Yazdi Moghadam H, Estaji Z and Heydari A. Study of the quality of life of nurses in Sabzevar hospitals in 2005–2006. *J Sabzervar Univ Med Sci* 2009; 16: 50–56.
51. Corley MC. Nurse moral distress: a proposed theory and research agenda. *Nurs Ethics* 2002; 9: 636–650.
52. Assarroudi A, Jalilvand M, Oudi D, et al. The relationship between spiritual well-being and life satisfaction in the nursing staff of Mashhad Hasheminezhad Hospital. *Modern Care J* 2011; 2012(9): 156–162.
53. Payne IR, Bergin AE, Bielema KA, et al. Review of religion and mental health: prevention and the enhancement of psychosocial functioning. *Prev Hum Serv* 1991; 9: 11–40.
54. Larson DB, Swyers JP and McCullough ME. *Scientific research on spirituality and health: a report based on the scientific progress in spirituality conferences*. Bethesda, MD: National Institute for Healthcare Research, 1998.
55. Plante TG and Sherman AC. *Faith and health: psychological perspectives*. New York: Guilford Press, 2001.
56. McClain CS, Rosenfeld B and Breitbart W. Effect of spiritual well-being on end-of-life despair in terminally-ill cancer patients. *Lancet* 2003; 361: 1603–1607.

57. Machin D, Campbell MJ, Tan S-B, et al. *Sample size tables for clinical studies*. Hoboken, NJ: John Wiley & Sons, 2011.
58. Paloutzian R and Ellison C. *Spiritual well-being scale*. Nyack, NY: Life Advance, 1982.
59. Riley BB, Perna R, Tate DG, et al. Types of spiritual well-being among persons with chronic illness: their relation to various forms of quality of life. *Arch Phys Med Rehab* 1998; 79: 258–264.
60. Allen R, Judkins-Cohn T, Forges E, et al. Moral distress among healthcare professionals at a health system. *JONAS Healthc Law Ethics Regul* 2013; 15: 111–118.
61. Hamric AB, Borchers CT and Epstein EG. Development and testing of an instrument to measure moral distress in healthcare professionals. *AJOB Prim Res* 2012; 3: 1–9.
62. Elpern EH, Covert B and Kleinpell R. Moral distress of staff nurses in a medical intensive care unit. *Am J Crit Care* 2005; 14: 523–530.
63. Zare A and Jahandideh S. The impact of special wards nursing spiritual well-being upon patients' spiritual care. *Iran J Nurs Res* 2014; 9: 30–38.
64. Rahimi N, Nouhi E and Nakhaee N. Spiritual health among nursing and midwifery students at Kerman University of Medical Sciences. *Hayat* 2014; 19: 74–81.
65. Abbaszadeh A, Borhani F and Abbasi M. Spiritual health, a model for use in nursing. *J Med Ethics* 2015; 8: 57–76.
66. Rabow MW and Knish SJ. Spiritual well-being among outpatients with cancer receiving concurrent oncologic and palliative care. *Support Care Cancer* 2015; 23: 919–923.
67. Larson LE and Goltz JW. Religious participation and marital commitment. *Rev Relig Res* 1989; 30: 387–400.
68. Ravari A, Bazargan-Hejazi S, Ebadi A, et al. Work values and job satisfaction: a qualitative study of Iranian nurses. *Nurs Ethics* 2012; 20: 448–458.
69. Taylor EJ and Carr MF. Nursing ethics in the seventh-day adventist religious tradition. *Nurs Ethics* 2009; 16: 707–718.
70. Ghasemi-Pirbaloti M, Ahmadi R, Alavi-Eshkafteki SM, et al. The association of spiritual intelligence and job satisfaction with mental health among personnel in Shahrekord University of Medical sciences. *J Shahrekord Univ Med Sci* 2014; 16: 123–131.
71. Wiegand DL and Funk M. Consequences of clinical situations that cause critical care nurses to experience moral distress. *Nurs Ethics* 2012; 19(4): 479–487.
72. O'Connell CB. Gender and the experience of moral distress in critical care nurses. *Nurs Ethics* 2014; 22: 32–42.
73. Bykmrady A, Rabiee S, Khatibian M, et al. Moral distress among nurses in intensive care units: a survey of health centers in Hamadan. *J Med Ethics* 2012; 5: 53–63.
74. Corley MC, Minick P, Elswick R, et al. Nurse moral distress and ethical work environment. *Nurs Ethics* 2005; 12: 381–390.
75. Rice EM, Rady MY, Hamrick A, et al. Determinants of moral distress in medical and surgical nurses at an adult acute tertiary care hospital. *J Nurs Manage* 2008; 16: 360–373.
76. Cavaliere TA, Daly B, Dowling D, et al. Moral distress in neonatal intensive care unit RNs. *Adv Neonatal Care* 2010; 10: 145–156.
77. Trautmann J, Epstein E, Rovnyak V, et al. Relationships among moral distress, level of practice independence, and intent to leave of nurse practitioners in emergency departments: results from a national survey. *Adv Emerg Nurs J* 2015; 37: 134–145.
78. Erlen JA. Moral distress: a pervasive problem. *Orthop Nurs* 2001; 20: 76–80.
79. Ebrahimi H, Kazemi A, Asghari Jafarabadi M, et al. Moral distress in nurses working in educational hospitals of Northwest Medical Universities of Iran. *Iran J Med Ethics Hist Med* 2013; 6: 80–88.
80. Abbas Zadeh A, Borhani F, Sharif F, et al. The relationship between nurse's moral distress and end of life decisions in intensive care unit. *J Med Ethics* 2012; 6: 117–133.
81. Burston AS and Tuckett AG. Moral distress in nursing Contributing factors, outcomes and interventions. *Nurs Ethics* 2013; 20: 312–324.