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Exploring the Relationship Between Nurses' Spiritual Intelligence, Critical Thinking, and Moral Development in the Middle East

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Abstract

The purpose of this study is to assess the level of moral development, spiritual intelligence, and critical thinking of nurses, and to see if there is a relationship between these constructs for them. A descriptive correlational design was used, with a sample of 102 nurses in Iran. The descriptive statistics and Pearson's correlation were done on the survey results using SPSS (Version 24). The moral development level scores of the nurses were 34 ± 2.17, which is considered average, critical thinking was 25 ± 1.23, which is considered relatively high, and spiritual intelligence scores were 41 ± 2.75, which is considered relatively low. Both spiritual intelligence and critical thinking were positively correlated with the nurses' moral development ($R = 0.76$, $R = 0.48$, respectively). The conclusion of the paper is that more attention needs to be paid to raise the level of critical thinking, spiritual intelligence, and moral development in nurses.

Keywords

spiritual intelligence, critical thinking, moral development, nursing

In addition to having a considerable amount of scientific knowledge and practical skills, nurses need to be able to think critically, and have high moral and ethical standards (Zirak et al., 2013). Nurses' moral reasoning and ethical decision-making is also associated with better patient outcomes (Chitgari et al., 2023). Unfortunately, these aspects of nursing practice are often neglected in nursing education and nurses' ongoing professional development.

Spiritual Intelligence

While many factors are related to moral development, spiritual intelligence is considered by the authors as an essential dimension, but one that is often neglected in the literature and in academia (Raisi, 2013). In other words, general intelligence and emotional intelligence are in themselves not sufficient to predict performance and do not account for behavior in certain conditions. Tamannaeifar and Hossain panah (2019) has suggested that spiritual intelligence is a distinct form of intelligence. Spiritual intelligence includes the ability to reach sublime states, use metaphorical thought processes, and create a holistic view of life experiences which can be distinguished from other intelligences (Findyartini, 2022). Those enjoying a high spiritual intelligence are more likely to find purpose for their daily experiences than persons with lower levels of spiritual intelligence. They have a greater capacity for setting a specific goal in

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life, creating meaning, and helping people find their ways through crises, and can act effectively in emergency conditions (Pant & Srivastava, 2019).

Critical Thinking

Another important factor that is related to a nurse's moral development is critical thinking. Healthcare workers today need to be competent in gathering information, analyzing and organizing information, drawing conclusions, and providing the necessary feedback. Healthcare workers are also expected to have sufficient creativity and innovativeness to solve novel work issues and problems (Gharib et al., 2009). Critical thinking, along with communication skills, problem-solving, information technology literacy, and media literacy are essential to contemporary nursing practice. Being able to think critically is a valuable means of helping nurses make correct decisions in various situations and conditions (Ding et al., 2022). Considering the importance of critical thinking and spiritual intelligence in the quality of care-provision and their possible role in the ethical aspects of care, the present study aimed to explore the relationship between nurses' spiritual intelligence and critical thinking with their moral development.

Method

The present descriptive correlational study was conducted from January to November 2022. The participants were nurses affiliated with Birjand University of Medical Sciences. A cluster sampling method was used to select the required sample. Within the sampling procedure, the nurses from the city of Ferdows were selected, which is in the South Khorasan province of Iran. The total number of nurses in Ferdows identified was 114, of which 102 agreed to participate and meet the eligibility criteria, which included their willingness to answer all of the questions and give requested demographic information.

Data Collection

The data collected was from three questionnaires. The first was the Spiritual Intelligence Questionnaire (King & DeCicco, 2009), which consists of 24 Likert scale items; the highest possible score is 96, the lowest is 0. It includes four subscales including existential thinking, personal meaning production, transcendental awareness, and conscious state expansion. We used a version of the scale translated into Persian. The reliability of this questionnaire has been reported based on using Cronbach's alpha at 0.9292 (Tamannaeifar & Hossaub panah, 2019).

The second instrument used was the critical thinking questionnaire which included 34 items. The critical thinking skill questionnaire was translated into Persian by Khodamoradi and colleagues (2006) and its validity was substantiated. Khodamradi and colleagues (2006) measured the reliability of the Persian version of the questionnaire using Cronbach's alpha test and reported it to be 0.86.

The third questionnaire measures the participant's moral development level. It is based on Kohlberg's theory of the stages of moral development. The moral development questionnaire contained six scenarios. The minimum score for moral development in each scenario was 3 and the maximum score was 11. The validity and reliability were measured by Zirak and colleagues (2013) To validate the questionnaire, the face validity method was used which was confirmed by 40 professors of sociology, medical ethics, and nursing. To test the reliability, the questionnaire was submitted to 40 nurses at an interval of 40 days, and a test–retest method was sued to estimate the correlation coefficient. It was found to be 20%, indicating an acceptable level of reliability (Zirak et al., 2013). Having gained the required permission from the research and ethics committee, the online data collection began. The researcher first developed the questionnaires through the Press Line site, and then provided explanations and obtained written consent from the participants through an electronic link to the questionnaires. The respondents were asked to complete the questionnaires within a period of 1 week. Incomplete answers to the questionnaire were removed in the data analysis process.

Data Analysis

The data analysis was done using SPSS (Version 24.0). Descriptive statistics included percentage, mean, and standard deviation to describe the data. Then, the Skewness and Kurtosis test was used to test the normal distribution of data. Pearson's correlation test was used to explore the relationship between critical thinking and spiritual intelligence with moral development.

Ethical Considerations

The study was approved by the Research Deputy and Research Ethics Committee of Birjand University of Medical Sciences. All participants provided consent for their participation in this study.

Results

In this study, 102 Iranian nurses completed the questionnaires. A total of 70% ($n = 74$) were female, the average age of the participants was 32 ± 2.47 years, with a range from 22 to 48 years (see Table 1 for more of the participants' demographic information). The normality of the data distribution tests showed that the data have a normal distribution. The results (see Table 2) show that there is a significant positive relationship between spiritual intelligence and moral development. The higher the level of spiritual intelligence, the higher the level of moral development (see Table 2 for the

Table 1. The Participants' Demographic Information.

Variable		Frequency	Percentage
Sex	Male	28	27.45%
	Female	74	72.55%
Marital Status	Single	31	30.4%
	Married	71	69.60%
Education Level	Bachelor	86	84.31%
	Master	16	15.69%
Clinical Experience (Years)	1–5	19	18.62
	5–10	58	56.86
	10–15	16	15.68
	15–20	6	5.88
	20–25	3	2.94
Age (Year)	20–30	60	58.82
	30–40	29	28.43
	40–50	9	8.82
	50–60	4	3.92

Table 2. The Relationship Between Nurses' Spiritual Intelligence and Moral Development.

Variable	Max	Min	$M \pm SD$
Spiritual Intelligence	89	17	41 ± 2.75
Moral Development	62	24	34 ± 2.17
Pearson Correlation Test	$P = .001$	$R = 0.76$	

relationship between nurses' spiritual intelligence and moral development).

There was also a significant positive relationship between critical thinking and the level of moral development, but the strength of this relationship is less than that of the spiritual intelligence and moral development (see Table 3 for the relationship between nurses' critical thinking and moral development). Exploring the relationship between the demographic variables of sex, marital status, and level of education showed only the significance of the relationship between sex and moral development ($p < .05$). Exploring the relationship between the variables of age and the mean length of clinical experience (in years) using Pearson's correlation test with moral development showed that only the relationship between age and moral development was significant ($r = 0.47$; $p = .028$).

Discussion

Every day, nurses make decisions which impact people's health, well-being, and life; therefore, nursing practice is inescapably a moral, as well as a practical and economic enterprise. Thus, nurses' understanding of, and commitment to, the highest level of moral standards should be evaluated and promoted by educational and healthcare agencies. The present study aimed to explore the relationship between moral development, spiritual intelligence, and critical thinking in nursing.

Table 3. The Relationship Between Nurses' Critical Thinking and Moral Development.

Variable	Max	Min	$M \pm SD$
Critical Thinking	31	8	25 ± 1.2334
Moral Development	62	24	± 2.17
Pearson Correlation Test	$P = .002$	$R = 0.48$	

The nurses' scores on the moral development items found them to have an average level of moral development. The present study showed that although about half of the participants had an acceptable level of moral development. This finding is similar to that of Zirak and colleagues' (2013) study of ethical reasoning in nursing students and nurses in Northern Iran. Zirak and colleagues (2013) also found that the nurses had lower ethical reasoning scores than the nursing students, and that the score was lower with those with more nursing experience. This finding could also be explained by age or cohort, which is confounded with level of experience as a nurse. Either way, this indicates a need for nurse educators, nurse administrators, and nurse researchers to pay more attention to nurses' moral development because a significant number of nurses did not make appropriate moral decisions in response to the ethical dilemmas. Ghadermazi and colleagues' study (2021), also done in Iran, which focused on moral reasoning and related factors in nursing students, had similar findings.

The present study also found that the participants' levels of spiritual intelligence were lower than expected and in need of greater study and attention. We found that the participants did not know much about spiritual intelligence, and that this type of intelligence is neglected in nursing programs in Iran. This study did not include any measurement of the practical implications of this relative lack of awareness and focus on spiritual intelligence. This study did find that moral development and spiritual intelligence were significantly and positively correlated. Also, a study of medical students of Azerbaijan University, Iran, showed that the medical students' levels of spiritual intelligence was low. In that study, a low level of spiritual intelligence was linked to negative behaviors, including crime and moral problems (Kolahihamed et al., 2018). In this regard, another study, by Shahin and colleagues (2021), showed that the majority of participants had an average level of spiritual intelligence. In that study the tendency to consume drugs was negatively associated with spiritual well-being. Those addicted to drugs constantly required programs to increase spiritual well-being to overcome moral problems (Shahin et al., 2021).

Another finding of this study was that the participants had a relatively high level of critical thinking. Despite this score being higher, it is important for nurse educators to be aware of and seek to reduce barriers to having higher levels of critical thinking among nurses. We think that giving students greater freedom choosing careers can reduce the number of nurses not well disposed for a career in nursing. Another

issue related to the recruitment and admission of nursing students who appreciate the moral and practical demands of the work, is the conflict between expectations and the reality of nursing because of the misinformation, distortion, and stereotypic images of nurses. The lack of continuation of education related to critical thinking, spiritual intelligence, and moral development remains a problem in nursing.

Another finding of this study was that there was a significant relationship between moral development and critical thinking. The present findings showed a positive relationship between the level of moral development and critical thinking, but the strength of this relationship is lower and weaker than the relationship between the level of emotional reflection and spiritual intelligence. The results showed that the nursing students' level of moral development was positively correlated with their academic grade and diagnostic thinking; thus, with an increase in their diagnostic thinking, the ability of moral reasoning also increased in students.

Implications for Nursing Science, Education, and Practice

The correlation found between moral development, spiritual intelligence, and critical thinking in nursing supports the need for greater attention to spiritual intelligence, as well as critical thinking, in nursing education, practice, and research. We hold that the relative neglect of spiritual intelligence in nursing education and practice reduces the quality of nursing care delivered to patients, which results in poorer health outcomes and wasted healthcare resources. It is recognized by the authors that spiritual intelligence is described in different ways by different nurse educators, leaders, and researchers in different places, and that there are multiple ways to think about and increase spiritual intelligence.

Some nurse theorists, like Jean Watson (2006), explicitly include the term "spirituality" in their work; others, like Parse (2021), use philosophical notions such as mystery, illimitability, paradox, and freedom, which support nurse's spiritual intelligence, critical thinking, and moral development, as discussed in this paper. Mindfulness, transcendence, compassion, human dignity, and increasing awareness of the higher reaches of human consciousness, are other ideas and practices that nourish an interior life. Without attention to this life-giving dimension of being it is easy for nurses to burnout due to over-activity and evasion of what makes us truly human. Spiritual intelligence and critical thinking, as well as moral development, can also be viewed as contemplative or reflective aspects of nursing, which needs to inform the activities of nurses to better meet the challenge of contemporary healthcare.

Conclusion

The findings of this study of nurses in Iran were that their level of moral development was average, their spiritual intelligence was relatively low, but their critical thinking was relatively high. Despite these mixed findings, there is still considerable room for improvement considering the importance and nature of the work of nurses. Since both spiritual intelligence and critical thinking were positively correlated with the level of moral development in nurses, it is necessary to include more content and activities that increase these two dimensions of nursing. We think that nursing education and administration should take measures to improve the basic and ongoing education of nurses regarding spiritual intelligence, critical thinking, and moral development. Also, more studies may be needed to shed light on other effective factors regarding levels of moral development.

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