

Short Report

Association between Nurses' Moral Intelligence and Their Caring Behaviors

Farzin Mollazadeh, Yaser Moradi, Hossein Habibzadeh, Madineh Jasemi, Parivash Karimi

Patient Safety Research Center, Clinical Research Institute, School of Nursing and Midwifery, Urmia University of Medical Sciences, Urmia, Iran

ORCID:

Farzin Mollazadeh:
0000-0002-4730-172X

Yaser Moradi:
0000-0001-9331-7573

Hossein Habibzadeh:
0000-0002-6297-6987

Madineh Jasemi:
0000-0003-2055-920X

Parivash Karimi:
0000-0003-4116-0994

ABSTRACT

Background: Nurses' caring behaviors (CBs) are affected by several factors, including their moral intelligence (MI). However, nurses' MI and its association with their CBs have not been well studied, and the published studies have also found conflicting results. **Objective:** This study aimed to determine the association between nurses' MI and their CBs. **Methods:** A descriptive, correlational study was conducted on nurses and patients in Urmia, Iran, in 2020. Using random sampling, 100 nurses and 300 patients were recruited for the study. Demographic characteristic form, the Lennick and Kiel Moral Competency Index, and the CB Inventory were used to collect data. Descriptive statistics and the Pearson's correlation test were used to analyze the data. **Results:** A direct correlation was found between the total scores of MI and CB ($r = 0.54, P < 0.001$). Furthermore, the subscales of MI were correlated with the most subscales of CB, including ensuring human respect, respect for others, and attentiveness to the other's experience ($P < 0.05$). **Conclusion:** Authorities should establish in-service training programs to strengthen the nurses' MI and CBs.

KEYWORDS: *Caring behavior, Moral intelligence, Nursing*

INTRODUCTION

Ethical values have an outstanding position in professional nursing. The extent to which nurses adhere to ethical values in patient care is affected by a variety of factors, especially their moral intelligence (MI).^[1] MI refers to the capacity to understand and differentiate between the wrong and the right, to have strong and deep moral beliefs, and to behave based on those beliefs.^[2] Considering the role of ethics in guiding nurses' behavior, promoting their MI may improve the quality of nursing care.^[1]

Caring behavior (CB) refers to nurses' actions concerned with the patients' physical and mental well-being and comfort. While caring for a patient, nurses should pay attention to the physical and technical aspects of care, maintain the patient's dignity and respect, and respect the patient's beliefs and values. Providing comprehensive and quality care can lead to greater comfort, faster recovery,

greater satisfaction, and more effective realization of therapeutic goals for both patients and the healthcare system.^[3]

Nurses' adherence to care ethics plays an important role in improving their CB.^[4] However, nurses' MI and its association with their CB have not been well studied, and the published studies have also found conflicting results in this regard. While Karabey found a significant relationship between MI and CB in Turkish nurses,^[1] a study in Iran failed to confirm such a relationship.^[5] Therefore, the question remains

Address for correspondence: Mrs. Parivash Karimi, Patient Safety Research Center, Clinical Research Institute, School of Nursing and Midwifery, Urmia University of Medical Sciences, Urmia, Iran.
E-mail: parivash.karimi.a99@gmail.com

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whether there is a relationship between nurses' MI and their CB.

Objective

This study was conducted to determine the association between nurses' MI and CB.

METHODS

A descriptive, correlational study was conducted in 2020 on nurses and patients in four educational hospitals of Urmia University of Medical Sciences, Urmia, Iran. The sample size was calculated using the results of an earlier study by Dehghani *et al.* where a significant correlation ($r = 0.428$) was found between nurses' MI and organizational commitment.^[6] Then, with a type I error of 0.05 and a type II error of 0.10 and considering a possible dropout of 40%, the needed sample size for the nurses was calculated at 100. After calculating the sample size, the required number of nurses from each hospital and ward was calculated based on the proportion of nurses in each hospital and ward to the total required sample. Next, the required number of nurses in each ward was selected using a random number table and the list of nurses in each ward. Then, similar to the study by Rego *et al.*,^[7] three patients cared for by each nurse – 300 patients in total – were randomly recruited for the study.

Inclusion criteria for nurses were at least 1 year of clinical experience, a bachelor's degree or higher in nursing, and working in medical or surgical wards. Patients were enrolled if they were on at least the 3rd day of hospitalization, had no serious communication problems, expressed no serious mental disorders, and had been under the care of the concerned nurses for at least one working shift. Incomplete response to the questionnaires was the only exclusion criterion.

We used a three-part instrument including a demographic characteristic form, the Lennick and Kiel Moral Competency Index (MCI), and the CB Inventory (CBI). The MCI consists of 40 items in four subscales of integrity, responsibility, compassion, and forgiveness.^[2] All items are scored on a five-point Likert scale from "1: Never" to "5: In all situations." According to the developer's guideline, the overall score is divided by two, and scores 100–90, 89–80, 79–70, and 69 and less are considered as excellent, very good, good, and weak, respectively. Bahrami *et al.* evaluated the validity and reliability of the MCI and its Cronbach's alpha was reported to be 0.89.^[8]

The CBI consists of 42 items in five subscales of respect for others, ensuring human presence, positive connectedness and attitude, professional knowledge and skills, and attentiveness to the other's experience.^[9] All items are scored on a six-point Likert scale from "6: Always" to "1: Never." The overall score can range between 42 and 252; a higher score indicates better CB. Ghafouri *et al.* evaluated the validity and reliability of the Persian CBI and its Cronbach's alpha was reported to be 0.92.^[10]

The first researcher, referring to the above hospitals, first selected eligible nurses to complete the MCI. Then, without informing the nurses, the researcher randomly selected three eligible patients cared for by each nurse and provided them with a copy of the CBI to answer in a private setting.

Ethical considerations

This study was approved by the Research Ethics Committee of Urmia University of Medical Sciences, Urmia, Iran (Ethics ID: IR.UMSU.REC1398.309). Participants were given detailed information about the objectives of the study and the confidentiality of data management. Informed consents were obtained from all participants.

Data analysis

Statistical analyses were performed using the SPSS software version 16 (SPSS, Inc., Chicago, IL, USA) at a significance level of <0.05 . Descriptive statistics were used to describe the data, and the Pearson's correlation test was used to examine the association between scores of MI and CB.

RESULTS

The nurses' mean age was 29.56 ± 5.48 years. They also had a mean work experience of 5.53 ± 4.87 years. Most of them were female (72%), 52% were married, and 90% had a bachelor's degree in nursing, while the remaining had a master's degree. The patients' mean age was 43.74 ± 16.88 years. A majority of the patients were female (62.7%), most of them were single (81%), and 63% had an education level lower than a high school diploma.

The mean scores of MI and CB were 71.79 ± 10.24 and 172.85 ± 18.49 , respectively. A significant direct correlation was found between the total scores of MI and CB ($P < 0.001$). In addition, the subscales of MI were correlated with the subscales of ensuring human respect, respect for others, and attentiveness to the other's experience ($P < 0.05$). However, none of the subscales of MI correlated significantly

Table 1: Pearson's correlation coefficient between moral intelligence and caring behaviors^a

Variable Caring behaviors	Moral intelligence				
	Forgiveness	Compassion	Responsibility	Integrity	Overall moral intelligence
Ensuring human presence	0.40 (<0.001)	0.43 (<0.001)	0.52 (<0.001)	0.53 (<0.001)	0.54 (<0.001)
Respect for others	0.34 (0.001)	0.24 (0.015)	0.35 (<0.001)	0.29 (0.003)	0.36 (<0.001)
Positive connectedness and attitude	0.31 (0.75)	0.15 (0.124)	0.62 (0.541)	0.42 (0.676)	0.06 (0.494)
Professional knowledge and skills	0.00 (0.996)	-0.77 (0.444)	0.42 (0.676)	0.13 (0.189)	0.60 (0.554)
Attentiveness to the other's experience	0.33 (<0.001)	0.26 (0.008)	0.30 (0.002)	0.17 (0.086)	0.29 (0.003)
Overall caring behaviors	0.46 (<0.001)	0.48 (<0.001)	0.51 (<0.001)	0.42 (<0.001)	0.54 (<0.001)

^aData presented as *r* (*P* value)

with the subscales of positive connectedness and attitude, as well as professional knowledge and skills [Table 1].

DISCUSSION

In the present study, the overall mean of nurses' MI was good. This was somewhat lower than that of nurses in an earlier study conducted in Tehran.^[5] However, MI of Iranian nurses seems to have improved in recent years.^[11] The improvements in MI of Iranian nurses can be attributed to the fact that the quality of nurses' education and their professional status have improved in the last two decades.

In the present study, nurses received 68% of the CB score. Our nurses scored slightly lower than what was reported in earlier studies in Ardabil^[12] Iran; however, they scored higher than what was reported by a study in Turkey.^[13] It seems that our nurses were aware of the impact of their CB on the quality of care and patient satisfaction.

We found a significant correlation between the overall scores of MI and nurses' CB. A similar finding was reported in a study by Karabey.^[1] In another study by Shakeri *et al.*, however, no significant correlation was found between nurses' MI and CB.^[5] The inconsistencies between the studies might be attributable to differences in nurses' cultures and working conditions, as well as differences in the instruments used. We used self-report questionnaires. Such instruments may increase the possibility of recall and social desirability biases.

CONCLUSION

Our nurses had good MI and favorable CB. We also found a significant association between nurses' MI and their CB. Given the critical role of MI and CB in the quality of care and patient satisfaction, nursing authorities should establish in-service training programs to strengthen the nurses' MI and CB.

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Conflicts of interest

There are no conflicts of interest.

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Erratum

The Effects of an Educational Intervention on fatigue and Activities of Daily Living in Patients with Systemic Lupus Erythematosus

In the article titled “The Effects of an Educational Intervention on fatigue and Activities of Daily Living in Patients with Systemic Lupus Erythematosus”, published on pages 24-30, Issue 1, Volume 11 of Nursing and Midwifery Studies,^[1] the affiliation of (Sakine Zahiri, Simin Jahani, Neda Sayadi is written incorrectly as “Chronic Diseases Care Research Center, Ahvaz Jundishapur University of Medical Sciences, 1Nursing Care Research Center in Chronic Diseases, Medical and Surgical Nursing Department, Nursing and Midwifery School” instead of “Nursing Care Research Center in Chronic Diseases, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran”

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