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Relationship between Moral Intelligence and Psychological Safety among Emergency and Intensive Care Unit Nurses

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Gholamhossein Mahmoudirad[1], Hoda Khoshbakht[2*], Gholamreza Sharifzadeh[3], Alimohammad Izadpanah[1]

1 School of Nursing and Midwifery, Birjand University of Medical Sciences, Iran.
2 Student Research Committee, Birjand University of Medical Sciences, Birjand, Iran.
3 School of Health, Birjand University of Medical Sciences, Iran.

Abstract

Background and Objectives: High moral intelligence in nurses is considered a supportive factor against different pressures and is assumed to promote psychological safety. The present study aimed to investigate the relationship between moral intelligence and psychological safety of nurses in emergency and intensive care units.

Methods: This descriptive-correlational study was conducted on 255 nurses working in the intensive care unit and emergency department of tertiary hospitals affiliated to Birjand University of Medical Sciences, Birjand, Iran. Data collection tools included Lennick and Kiel's moral intelligence scale and Edmonson's psychological safety scale. Data were analyzed in SPSS software (version 16) using descriptive statistics and regression.

Results: The mean scores of moral intelligence and psychological safety were measured at 73.10±8.13 and 26.91±3.35, respectively. The results of regression analysis indicated that among the dimensions of moral intelligence, compassion (β=0.21) and responsibility (β=0.19) had the power to predict nurses' psychological safety. In doing so,the predictor variables (i.e., compassion and responsibility) could explain 12% of the variance in the response variable (psychological safety).

Conclusion: As evidenced by the obtained results, it can be concluded that moral intelligence as an intrinsic supportive factor can improve nurses' psychological safety and reduce work-related injury by reinforcing positive psychological factors.

Keywords: Moral intelligence, Psychological safety, Nurses.

***Correspondence:** Should be addressed to Ms. Hoda Khoshbakht. **Email:** Hodakhoshbakht4@gmail.com

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Introduction

The needs of today's employees have undergone dramatic changes as compared to the past. In this regard, the personnel demand special privileges, such as a sense of security, participation, the inclusion of their opinions in work, apart from salary and benefits (1). On the other hand, healthcare professions are exposed to many sources of psychological stress (2). Among healthcare professionals the emergency department nurses are under constant mental pressures which can affect their psychological safety. It is due to the stressful nature of their workplace and the special conditions of the patients (3).

The provision of psychological safety to nurses improves patient safety and enhances the quality of care (4). Therefore, hospital managers always seek to develop effective methods to improve nurses' psychological safety. Psychological safety is one of the key factors of a healthy lifestyle and indicates the extent to which people in an organization believe they can perform activities without experiencing stress (5). In other words, psychological safety reflects the mental state of individuals in which they feel secure and

can easily express their thoughts, perceptions, and opinions without the fear of interrogation or threat (6,7). As illustrated by the results of a study conducted by Ross and Jones, the psychological safety of team members fosters creativity and active participation in teamwork (8). The results of several studies suggested that the feeling of psychological stress and the lack of positive and effective communication in the organization are regarded as serious threats to the formation of psychological safety (9).

Lack of psychological safety leads to increased mental stress, absenteeism, and decreased job satisfaction in physicians and nurses (10). Psychological and workplace empowerment programs are among the strategies recommended for the improvement of nurses' psychological safety (2). These programs rely on hospital ethical leadership (10), safety-oriented leadership (9), and improved interpersonal communication (11). Feelings of psychological safety can enhance one's motivations in the workplace and prevent disinterest, hostility, and unhealthy competition (12). Moreover, the results of a study performed by Coombe suggested that safety-oriented leadership affects psychological safety and leader-follower interaction (13). Research results demonstrated that nurses' enhanced psychological empowerment can improve their psychological safety (14). Rahmati examined the predictors of nurses' psychological safety considering different dimensions of forgiveness. The results of the mentioned study revealed that psychological safety has a significant association with self-forgiveness and other aspects of forgiveness. Therefore, self-forgiveness as an aspect of moral intelligence can improve nurses' psychological safety by reinforcing positive psychological factors and reducing work pressure-related injuries (15).

Therefore, moral intelligence is seemingly one of the variables that can act as a barrier to psychological stress in the workplace and a contributor to increased psychological safety of nurses. Moral intelligence is defined as the capacity and ability to differentiate right from wrong, the possession of strong ethical beliefs and their practice, and proper and respectful behavior. It encompasses four dimensions, namely honesty (righteousness), responsibility (acknowledgment of actions and consequences), compassion (empathetic attention to others), and forgiveness (awareness of imperfections and mistakes and forgiveness of oneself and others) (16). Moral intelligence is one of the dimensions of intelligence which can provide a framework for the proper functioning of human beings and is considered a predictor of one's behavior (17). Moral intelligence is known as the vital intelligence for all human beings since it directs other forms of intelligence (18). This intelligence encompasses the way we think, feel, and act (17). The role of moral intelligence and its importance is highly noticeable in the enhancement of interpersonal and social relationships, especially in the nursing profession that deals directly with people and their lives (19).

The results of the studies conducted on ethical intelligence have highlighted the significant impact of employing ethical intelligence in the workplace on organizations output. This effect is the result of the regulation of interactions, reduced conflicts, an enhanced atmosphere of understanding and cooperation, and reduced costs of managing employee performance (20). Donkor reported that nurses' moral intelligence both improves the services provided to patients and increases their empathy towards patients (21). Psychological safety and moral intelligence play a significant role in the enhancement of nurses' productivity in the workplace and exert positive effects on care provision and hospital efficiency. Therefore, the identification of the relationships between these two variables is of paramount importance. In addition, to the best of our knowledge, no study has so far been conducted on the relationship between these two variables. With this background in mind, the present study was conducted to investigate the relationship between psychological safety and moral intelligence in nurses of emergency departments and intensive care units in the tertiary hospitals affiliated to Birjand.

Methods

This was a cross-sectional descriptive-correlational study. The study population consisted of nurses working in Birjand public hospitals (Imam Reza, Valiasr, and Razi hospitals). A total number of 255 nurses were selected using the census method from nurses working in the emergency departments and intensive care units. The researchers obtained the approval of Ethics Committee and a written introduction letter from the nursing and midwifery school as well as the needed permissions from the health care centers' authorities. Before the commencement of the study, the researchers obtained the approval of the Vice-chancellor of Research and Technology of the University, as well as the needed permissions from the authorities of the tertiary hospitals. The inclusion criteria entailed: 1) a bachelor's degree or above, 2) a minimum of one year experience in the emergency department or intensive care unit, and 3) full-time employment in these departments.

Data collection tools included a demographics form, Lennick and Kiel's (2005) moral intelligence scale, and Edmonson's (1999) psychological safety scale, with Cronbach's alpha reliability coefficients of 0.96 and 0.70, respectively. The moral intelligence scale consists of 40 items distributed along four dimensions, namely integrity, responsibility, compassion, and forgiveness. Each item is on a five-point Likert scale from never (1 point) to always (5 points). The moral intelligence score is obtained by adding the scores of the four dimensions divided by 2, where the lowest and highest scores will be 20 and 100, respectively. As the translators of the scale into Persian, Bahrami et al. reported an 89% reliability using Cronbach's alpha (22).

The second scale was Edmondson's psychological safety scale which was translated into Persian by Shams and Khalijian (2013). Its validity was confirmed by construct validity, and its reliability was verified by Cronbach's alpha coefficient (0.80) (23, 2). The responses are rated on a five-point Likert scale ranging from 1 (disagree) to 5 (agree). Therefore, the total score is within the range of 7-35. The total score of each scale was reported from the highest to lowest based on the 5-point Likert scale and the logic of 20%. In so doing, the difference between the score range of each questionnaire is multiplied by 20%.Thereafter, the result is added to the lowest score of the questionnaire and continues to 5 categories. Finally, in the psychological safety questionnaire, the scores within the range of 35-29.5, 29.4-23.9, 23.8-18.3, 8.2-12.7, and 12.6-7 were rated as excellent, good, moderate, poor, and very poor. On the other hand, in the moral intelligence scale, the scores within the range of 85-100, 69-84, 53-68, 37-52, 36-20 were evaluated as excellent, good, average, poor, and very poor (32).

The data were analyzed in SPSS software (version 16) using descriptive and inferential statistics. Pearson correlation test was used to investigate the relationship between research variables, and regression was used to test the predictive value.

The current article is extracted from a research project which was approved by the Ethics Committee of Birjand University of Medical Sciences, Birjand, Iran (IR.BUMS.REC.1397.178). Accordingly, the participants were provided with all the necessary information to decide voluntarily on participation in this research and the informed consent form was deliberately completed. Furthermore, the participants were assured of the confidentiality of their responses.

Result

It is worthy to note that 69% of the nurses were females. The mean age of participants was reported as 30.49±6.27 years. Most of the participants (91.8%) had a bachelor's degree, and the majority (56.6%) had the experience of 1-5 years. Moreover, 41.6% of them worked in the emergency department and 58.4% served in the ICU, NICU, PICU, ICU, CCU, dialysis, and hemodialysis wards. Notably, there was no significant difference between the mean scores of moral intelligence and psychological safety in nurses concerning workplace, sex, marital status, and educational level (P> 0.05). Nonetheless, a significant difference was

reported in moral intelligence in terms of age and tenure (P<0.05). In addition, the Least Significant Difference post hoc test indicated that the mean score of moral intelligence in nurses with more than 10 years of tenure was significantly higher, as compared to those with 1-5 years of service (P=0.03; Table 1).

Table1. Frequency of demographic variables of nurses under study

Variables	n (%)	
Workplace	Emergency	106 (41.6 %)
	Intensive care units	149 (58.4%)
Years of service	1-5	144 (56.6%)
	5-10	56 (22%)
	10-15	29 (11.4%)
	>15	26 (10.2 %)
Educational level	Bachelor	234 (91.8 %)
	Master and higher	21 (8.2 %)
Gender	Male	79(31%)
	Female	176 (69%)
Age	≤25	55(21.6%)
	26-30	102(40%)
	31-35	46(18%)
	>35	52(20.4%)
Marital status	Single	70 (27.5 %)
	Married	185 (72.5 %)

The mean scores of nurses' moral intelligence and psychological safety were measured at 73.10 ± 8.13 and 26.91 ± 3.35, respectively. Based on 20% logic, these scores are considered to be at a good level suggesting that the nurses' moral intelligence and psychological safety are at desirable levels.

The results of the correlation test demonstrated a significant correlation between psychological safety and all components of moral intelligence, except for forgiveness (Table 2).

Table 2. Correlation coefficient of moral intelligence and psychological safety in nurses

Dimensions of moral intelligence	psychological safety	
	r	P-value
Honesty	0.16	0.009
Responsibility	0.20	0.001
Compassion	0.18	0.005
Forgiveness	0.11	0.08
Total moral intelligence	0.16	0.009

In addition, the results of the multiple regression analysis showed that among the components of moral intelligence, compassion with beta (β = 0.21) and responsibility with beta (β = 0.19) predict psychological safety (P<0.05), such that these variables (compassion and responsibility) could explain 12% of the variance in psychological safety (Table 3).

Table 3. Multiple regression analysis for predictive variables (compassion and responsibility) and response variables (psychological safety)

Predictive variables	R	R^2	ADJ R^2	SE	B	β	Sig.
compassion	0.36	0.13	0.12	0.07	0.19	0.21	0.007
responsibility				0.06	0.17	0.19	0.014
Honesty				0.08	0.04	0.04	0.6
Forgiveness				0.08	-0.01	-0.01	0.8

Discussion

The present study aimed to investigate the relationship between psychological safety and moral intelligence in the emergency department and intensive care unit nurses. The obtained results demonstrated that nurses working in Birjand public hospitals had a high level of moral intelligence and psychological safety.

In their studies, Mohammadi (20) and Mirzaee (18) reported that nurses' moral intelligence was above average, which is consistent with the results of the current research. This desirable level of moral intelligence in nurses may reflect the importance they attach to ethical standards in a clinical environment, which may have led nurses to report a desirable level of psychological safety For instance, Ardalanreported low levels of psychological safety in his research. Such studies have suggested that nurses undergo a great deal of psychological stress in the workplace which puts their psychological safety at risk (2). From the results obtained in the present study, it can be concluded that the nurse's psychological safety can be enhanced if nurses practice ethical behaviors involved in moral intelligence in their relationships with colleagues and managers.

Considering the associations between demographic characteristics and research variables, no significant correlation was observed between demographic variables, including place of work, sex, marital status, and educational level, and the variables of moral intelligence and psychological safety. Nevertheless, a significant relationship was

detected between moral intelligence and the variables of age and work experience. This finding is in line with the results of the study conducted by Mohammadi, Lapointe, and Langlois (20); however, it was inconsistent with the results of the study performed by Amini et al. In this regard, it can be inferred that moral intelligence is innate-acquired; in other words, increased age and experience smilingly enhances the dimensions of moral intelligence in nurses. It is due to the fact that considerable challenges can help nurses distinguish between right and wrong.

In addition, the current study assessed the impact of moral intelligence on psychological safety to identify the variables affecting nurses' psychological safety. As evidenced by the obtained results, moral intelligence exerted a significant effect on nurses' psychological safety. This finding is in accordance with the results reported in some previous studies. The study carried out by Lawler et al. indicated that forgiveness as a component of moral intelligence helped mentally abused individuals exhibit less stress and impulsivity. Moreover, these individuals were reported to cope with stressful events more efficiently (26). According to the study conducted by Sotoudeh, moral intelligence equips people with behaviors that can protect them against stressful workplace events which pose serious threats to health and psychological well-being (2). In a meta-analysis, Macbeth et al. linked compassion, which is another component of moral intelligence, to reduced psychological problems and increased psychological well-being (33). Hejazi et al. found that teachers with higher moral intelligence had better mental health. Moreover, they reported that among the components of moral intelligence, honesty had the strongest relationship with mental health (34). Walumbwa and Schaubroeck suggested that ethical leadership enhanced follower voice behaviors by creating a psychologically safe environment within the team. It can be concluded that even utilitarian team members may be less likely to act unethically when the development of safety is influenced by a formalistic model of behavior (35).

To interpret these results concerning the impact of moral intelligence on psychological safety, it can be argued that moral intelligence acts as a guide to human behavior and actions and helps individuals to take wise and optimal actions (27).

Consideration of ethics carries considerable implications, such as recognizing the suffering of others, controlling cruelties and temptations, managing passions, and listening impartially before judgment. Moreover, it enables people to accept differences and understand different values, reject unethical choices, have empathy with others, and respect others (28). Consequently, in such an environment, nurses do not worry about being rejected, reprimanded, or ridiculed by managers and other colleagues, and they perform their duties in greater security and peace of mind. Moreover, in such situations, nurses' psychological safety can be indirectly enhanced through the application of moral intelligence and interactive provision of psychological safety between colleagues (feedback from these interactions has positive results for the individual and the treatment team).

As illustrated by the results of the current study, compassion and responsibility are two components of moral intelligence that can provide a basis for improving nurses' psychological safety. In other words, nurses who feel a strong sense of responsibility towards their job duties are more open and attentive in their relationships with colleagues and provide a safe and supportive environment for themselves and others (29). They always attempt to improve their performance, and in so doing they get positive feedback from managers and colleagues. This increases their self-esteem, which in turn results in a high level of psychological safety. Nurses can also induce good morale in their colleagues by fostering mutual understanding through the implementation of compassion, kindness, and empathy into their relationships with colleagues. Consequently, the obtained positive feedback brings them mutual satisfaction (30, 31).

A myriad of psychological, social, and organizational factors are undoubtedly involved in psychological safety since it is a complex issue which is influenced by many variables. Accordingly, the mere focus on moral intelligence and ignoring other variables that can affect nurses' psychological safety is one of the most serious shortcomings of the current study. Therefore, it is suggested that researchers who are interested in this topic consider other variables affecting psychological safety. Moreover, the present study was performed only on nurses in Birjand-based hospitals; therefore, the results should be generalized cautiously. Furthermore, since the present research project is an observational rather than an intervention study, further studies are needed to confirm the causal relationships. In general, considering the role of moral intelligence in psychological safety, it is suggested that further studies be conducted on the mechanisms of promoting psychological safety in hospitals through the implementation of moral values.

Conclusion

Given that nurses' psychological safety is linked to moral intelligence, an optimal level of moral intelligence can reduce the excessive anxiety associated with people's reactions. This can be achieved by choosing the right behaviors and creating an atmosphere of understanding in friendly relationships. Moreover, due to the inevitability of specific stressors in the nursing profession (especially the emergency department and intensive care unit), observing moral values and ethics brings a sense of psychological safety to the workplace and a subsequent improvement in care quality.

Conflict of interest

The authors declare that they have no conflict of interest regarding the publication of this article.

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