

RESEARCH ARTICLE

THE RELATIONSHIP BETWEEN MORAL INTELLIGENCE AND AGGRESSION IN NURSES

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Abstract

Background & Aim: Moral intelligence is one of the dimensions of intelligence that can provide a framework for the proper functioning of human beings. Anger can have a significant impact on the quality of nursing care. The aim of this study was to determine the relationship between moral intelligence and anger in the nurses of Ilam city in 2019. **Methods & Materials:** In a study, a group of 69 nurses working in emergency and individual departments were chosen. Data collection was done with a demographic profile form and Lanic and Kiel's moral intelligence questionnaires (2011) and Buss and Perry's aggression questionnaires (1992). Data were analysed via SPSS-22 software. A coefficient of 0.05 was implemented. **Results:** The average Moral Intelligence score of all the nurses was 149.04 ± 17.90 , and Average aggression score of all the nurses was 72.62 ± 17.34 . Between moral intelligence and aggression of all nurses ($r=-0.33$, $p=0.007$) and emergency ward nurses ($r=-.053$, $p=0.0020$) There was a significant inverse correlation. **Conclusion:** Considering nurses 'day-to-day confrontation with work-related problems, it is necessary to pay attention to moral intelligence and its relationship with anger. Inclusion of the necessary training on the relationship between moral intelligence and anger management are suggested in nursing and nursing student curricula.

Keywords: Moral Intelligence, Anger, Nurse, Emergency, Special Care Unit

Introduction

Background

Intelligence, in its general sense, is defined as the ability to think, learn, as well as the ability to adapt and adjust to a new situation. Intelligence is divided into various aspects, including intellectual, emotional, spiritual, and moral.

Moral intelligence (ME) has attracted the attention of researchers today due to its wide-ranging impact on other areas [1]. Borba first introduced ME. He defines ME as "the capacity and power to understand right from wrong, to have strong moral beliefs and to practice them, as well as to behave in the right direction." He believes that ME is not a commitment, but is learned and should be achieved through

modelling, training, reinforcement, and training [2]. ME is directly related to the behaviours that people exhibit, and it creates a system of principles and rules that guide people in deciding what is right and wrong [3]. In the professions related to medical sciences, where people are directly involved with people and their lives, the role and position of ME and its importance in softening and improving interpersonal relationships and social relations are more prominent [4]. Nurses with high ME, have the ability to recognise the suffering of others, control cruelty and temptation in themselves, the ability to listen fairly and impartially, acceptance of differences and to realise various human values, rejecting immoral options, empathy, struggle with injustice, the understanding of others and respectful behaviour [5].

ME is one of the dimensions of intelligence that can provide a framework for the proper functioning of human beings and as a predictive factor of behaviour. In the meantime, the performance of nurses is of particular importance due to the human and moral nature of their profession, and their adherence to ethical principles may improve the quality of care and improve organisational performance. Studies show that increasing patients' satisfaction with the quality of nursing care depends on the amount of ME of nurses [6]. The four principles of honesty, responsibility, compassion, and forgiveness constitute ME. The principle of honesty means creating a balance between people's beliefs and actions. In fact, doing what we know is right and saying the right thing at all times. The principle of responsibility means accepting actions and their consequences, as well as mistakes and failures. The principle of compassion means paying attention to others and interacting with each other. The principle of forgiveness also includes knowing one's faults and mistakes, as well as forgiving oneself and others [7].

Emotions are mental, biological, purposeful, and social phenomena. Natural phenomena occur in different people. Among the emotions that play an essential and active role in everyone's life is the excitement of anger [8]. Anger, as a fundamental emotion, is associated with threat and negative evaluation activates physiological responses and influences behavioural tendencies [9]. Anger is one of the most passionate emotions that can be created in various ways and has many effects on various physical and mental dimensions [10]. Nurses working in special wards care for clients who have the least ability

to perform self-care procedures among patients. Therefore, most of their needs are met with the help of nurses and also show the most significant sensitivity to the quality of nursing care, so the level of ME and anger of nurses can have a significant impact on the quality of nursing care and consequently the recovery process of these patients. As a specialist in emergency care or emergency or trauma care, a nurse in the emergency department has the skills to treat patients at a stage where their disease has not yet been diagnosed, or the cause of their problem is unknown [11]. Considering the role of nurses' ME in the quality of nursing care and the importance of managing and controlling emotions caused by anger in nurses, this study aims to determine the relationship between ME and anger in nurses in emergency and individual departments of Imam Khomeini Medical Training Center, Martyr Mostafa Khomeini (Rah) and Taleghani (Rah) of Ilam city in 2019 was done.

Methods

This study was done in a descriptive-correlational fashion. Nurses who worked in the emergency and special wards of three educational and medical centres in Ilam in 2019, including Imam Khomeini, Shahid Mostafa (Rah), and Ayatollah Taleghani hospitals, and met the criteria to enter the research, were selected and counted in full. Criteria for entering the study included having a bachelor's degree in nursing or higher, nursing work experience in the emergency or special wards for at least two years, and criteria for leaving the study included a reluctance to continue studying and defective completion of questionnaires.

Demographic profile form and two questionnaires of ME and anger were used to collect information. The demographic profile form included age, gender, level of education, work experience, and shift Layout. The questionnaire of Lenik and Kiel's ME (2011) was used. This questionnaire includes 40 questions on the dimensions of action based on principles, values and beliefs, truthfulness, perseverance and insistence on the rights, the fulfilment of promises, responsibility for personal decisions, admission of mistakes and failures, acceptance of responsibility to serve others, actively Being interested in others, the ability to forgive one's own mistakes and the ability to forgive the mistakes of others. The questionnaire is arranged in the form of a five-point Likert scale (5=Always, 4=Most of the time, 3=Sometimes,

2=rarely, and 1=never). Each respondent gets a score of 40 to 200 in the Likert scale based on the 40 questions. By dividing this score by 2, the final score of their ME is scored between 20 and 100. The interpretation of the scores is that the score of 90 to 100 is excellent, 80 to 89 is very good, 70 to 79 is good, and 69 and less is considered weak.

To measure anger, Buss and Perry's aggression questionnaire (1992) was used [12]. This questionnaire is a self-report tool that includes 29 phrases and four subscales, which include physical aggression, verbal aggression, anger, and hostility. The subjects in each of the statements are in a range of 5 degrees: 5=quite like me, 4=somewhat similar to me, 3=not like me and do not like me, 2=somewhat not like me and 1=It is not so much like me. Not very similar to me = 1. The two phrases 1 and 19, are scored in reverse. The two phrases 9 and 16, are scored in reverse. The total score for aggression is obtained with the sum of the scores of the subscales. The Ethical Intelligence Questionnaire was localised during a study by colleagues in 2019 [13]. The validity of this questionnaire has been confirmed in various studies, and its Cronbach's alpha coefficient has been around 0.9. In Mohammadi's study in 1385, by examining the psychometric properties of the Persian form of the Buss and Perry's Aggression Questionnaire, its validity was confirmed and with Cronbach's alpha methods, retesting and halving, reliability of more than 0.8 was obtained. In this study, Cronbach's alpha was used to evaluate the reliability of research tools and their dimensions, all of which were more than 0.75.

After receiving a letter of introduction from the Student Research Committee of Ilam University of Medical Sciences and obtaining permission from the officials of the educational and medical centres, the researchers visited the centres in three shifts in the morning, evening, and night. And after explaining the objectives of the study, how to complete the questionnaires, the confidentiality of the answers and the form of informed written consent, the questionnaires were provided to the research samples.

Completed questionnaires were collected on the same day from the research units. Descriptive statistics (Average, standard deviation, Abundance, percentage, minimum and maximum) and Pearson correlation methods were used. SPSS software version 22 was used to analyse the data. The statistical significance level for the test of research hypotheses was considered to be 0.05.

Result

The findings of this study showed that the majority of nurses were female (67%), Had a bachelor's degree (84%) average income (75%) with an average age of 28.10 ± 4.66 , and were in the range of 23 to 40 years. The number of nurses in emergency wards was 31 people (45%) and in special wards was 38 people (55%), whom 38% were employed in the ICU and 17% in the CCU (Table 1). The highest and lowest scores on ethical intelligence were related to the dimensions of action based on principles, values and beliefs (15.94 ± 2.169), and the ability to forgive the mistakes of others (13.91 ± 2.126), respectively. The highest and lowest aggression scores were related to the dimensions of physical aggression (21.22 ± 6.114) and verbal aggression (13.28 ± 3.105), respectively (Tables 2 and 3).

The average score of ME for all the nurses was 149.04 ± 17.90 , emergency nurses 149.06 ± 19.39 , and individual ward nurses 149.03 ± 16.85 and the average score of aggression for all the nurses was 72.62 ± 17.34 , emergency nurses 76.71 ± 17.65 and individual ward nurses 69.29 ± 16.58 (Table 4). The results of Pearson correlation in nurses in emergency and special wards showed that there was a significant and reverse correlation between ME and aggression of all nurses ($r=-0.32, p=0.007$) and emergency nurses ($r=-0.53, p=0.002$). There was no significant correlation between ME and aggression of nurses in special wards (Table 5). Based on the interpretation of instrument scores, the average score of ME for all nurses, emergency department nurses, and intensive care unit nurses was 75% good. Also, the average aggression score for all nurses was 73, nurses for emergency departments 77, and nurses for special wards 70.

Table 1. Demographic characteristics of research samples

Variable		Abundance	Percentage
Gender	Woman	46	66.7

	Man	23	33.3
	Total	69	100
Education	bachelor's	58	84.1
	master's	6	8.7
	doctorate	5	7.2
	Total	69	100
Hospital	Imam Khomeini	28	40.6
	Shahid Mustafa	28	40.6
	Ayatollah Taleghani	13	18.8
	Total	69	100
ward	Emergency	31	44.9
	ICU	26	37.7
	CCU	14	17.4
	Total	69	100
income	Low	14	20.3
	Medium	52	75.4
	High	3	3.4
	Total	69	100
work experience	01-May	44	63.8
	06-Oct	15	21.7
	Nov-15	8	11.6
	More than 15	2	2.9
	Total	69	100

Table 2. Minimum, maximum and average scores of moral intelligence dimensions in research samples (n=69)

Dimensions of moral intelligence	Minimum	Maximum	Average	Standard deviation
Acting on the basis of principles, values and beliefs	11	20	15.94	2.169
Truthfulness	11	20	15.71	2.066
Perseverance and perseverance for the rights	9	20	14.19	2.505
Fidelity to the covenant	9	20	15.54	2.24
Responsibility for personal decisions	10	20	15.36	2.262
Admit mistakes and failures	9	20	15.04	2.44

Accept responsibility for serving others	8	20	14.16	2.518
Being actively interested in others	10	20	14.74	2.253
Ability to forgive your mistakes	9	20	14.75	2.794
The ability to forgive the mistakes of others	8	20	13.91	2.126
Total moral intelligence	102	200	149.04	17.899

Table 3. Minimum, maximum and average scores of aggression dimensions in research samples

Dimensions of aggression	Minimum	Maximum	Average	Standard deviation
Physical aggression	9	35	21.22	6.114
Verbal aggression	5	20	13.28	3.105
Anger	8	35	18	5.68
Hostility	10	32	20.13	5.76
Total aggression	43	113	72.62	17.344

Table 4. Average and standard deviation of moral intelligence and aggression scores in research samples

ward	Variable	Amount	Moral Intelligence		Aggression	
			Mean	SD	Mean	SD
	Emergency	31	149.06	19.39	76.71	17.65
	Special care	38	149.03	13.85	69.29	16.58
	Total	69	149.04	17.9	72.63	17.34

Table 5. Results of pearson solidarity moral intelligence and aggression in emergency and special nurses

Moral Intelligence				
	Ward	n	r	p-value
aggression	Emergency	31	-0.53	0.002
	Special	38	-0.14	0.4
	Total	69	-0.33	0.007

Discussion

In this study, the average score of nurses' ME was 75 per cent and somewhat "good." The results were the same in Gerzin and his colleagues' study on 120 nurses working in a

military hospital. The average score of ME in Asgari Trazoj and his colleagues' study on 261 nurses working in the emergency sections of

hospitals affiliated with the medical university of Kashan, was 73 per cent (good). The average

score of Asadeghi and his colleagues' study on 163 nurses in 5 educational-therapeutic centres of the medical university of Hamedan was 69 per cent (weak). These scores, 75, 73, and 69 are very close to each other, and the average score of morale intelligence of nurses place on good and weak ratings with a small difference. When considering that there are great (90-100 scores) and very good (80-89 scores) ratings in Lenik and Cale's ME scale (2011), the results of the current and other studies' scores should be reflected upon.

Findings showed that the best and the worst scores of ME were respectively related to "to act based on principles, values, and beliefs" and "the capability to forgive others' mistakes" dimensions. Research by Mahmoodi and his colleagues titled "Studying the Relation between ME and Altruism with Nurses' Attitude towards respecting patients' rights" on 200 nurses working in the medical university of West Azerbaijan was done. The results show that ME and the altruism variable affect the nurses' attitude towards respecting patients' rights. In a way that was increasing the ME and altruism is connected to improving the nurses' attitude towards respecting the patient's rights. In addition, a study by Jhang Yi and his colleagues on 107 nurses in 5 South Korea's Seol and Guangxi hospitals titled "The Effect of Flexibility and Anger Expression Style on Emergency Nurses' Performance" showed that the performance of nurses with high flexibility and low anger expression was better. Multiple linear regression results also showed that many work years in the emergency section, career satisfaction, anger expression, anger control, and flexibility predicts a 40 per cent increase in nurses' performance.

In this research, the average score of all of the nurses in Boss and Pry's scale was 72.62 ± 17.34 , and the average aggression score of nurses in the emergency section was higher than other individual sections.

The findings of the research showed that the highest and lowest average aggression scores, respectively, were related to physical aggression and verbal aggression. In accordance with a study done by Han and his colleagues titled "Different Kinds of Anger Expression and Nurses' Interpersonal Issues" data was collected from 149 nurses working in general hospitals with more than 300 beds in South Korea's Seol and Guangxi. The results showed that there are three types of anger expression in between

nurses: anger expression, anger, and anger type/control. Jhang Yi and his colleagues' study in South Korea also showed that the strongest predictors of the emergency section's nurses' performance are respectively, flexibility and anger. In relevance to this, it is necessary to pay attention to the opposite side of this issue, violence against nurses; because it is possible for nurses who are victims of violence to be placed as the cause of the violence. The results of a revision study on the spread of different types of violence against Iranian nurses showed that most of the violence was verbal and physical and their spread in the emergency nurses was respectively 90 and 21 per cent. The most common causes of violence were respectively, the patients' relatives, the patients, and the health care workers. Cheong Ti and his colleagues' article titled "Hong Kong: Spread and Correlation" was done with the aim of studying the level of the spread of social-economical and mental causes of violence in the workplace against professional nurses in Hong Kong. A total of 850 nurses participated in this study. About half of the participants had experienced some type of violence in the past year. The most common types of violence were verbal abuse and physical attack. The most common causes of violence were respectively patients, patients' relatives, co-workers, and supervisors. The clinical situation, shift work, career satisfaction, recent issues with co-workers, mental harm, and anxiety causes were significantly related to violence against nurses in a meaningful way.

According to the findings of this study, ME and aggression in all nurses and emergency nurses had an opposite and meaningful correlation. These results are favourable towards Kashani and his colleagues' and Asgari Trazoj and his colleagues' studies. The findings of these researchers showed that there is a meaningful correlation between ME and individual sections' nurses' aggression. There is a notable point when comparing the individual sections' nurses and emergency nurses in this study that the ME and aggression scores of individual sections nurses were lower. It is possible that nurses' ME is affected by the individual sections situation and related moral distresses. There has been a survey study about the moral distress of individual sections' nurses in education and therapeutic centres of Hamedan city. The results of this study have shown that there is a medium level of moral distress in between the individual sections' nurses that considerably affects their performance. Another study on the individual sections' nurses in Ilam showed that there is a

direct relationship between the understanding of vain care and moral distress. Lower aggression scores of individual sections' nurses in comparison to emergency nurses could be related to the differences in the physical and mental-social environment of the workplaces: lower number of patients, the stability of patients, lower number of patients' associates, lower rate of interaction with patients for reasons such as unconsciousness, coma, decrease in awareness level, and the capability to control patients' critical condition with special care, etc.

Conclusion

Because of nurses' everyday encounters with issues, tensions and excitements related to work, patients, patients' associates, and co-workers, it is necessary to pay attention to the relation between ME and excitement and anger. It is recommended that necessary training about the relationship between ME and anger management should be included in nurses and nursing students' curriculum. It is also necessary to increase the scientific and moral sensitivity of nursing managers in discovering and analysing negative excitements like anger and aggression, appropriate planning and assessing in this context in order to raise the nurses' ME, improving their mental health and decreasing nursing's tensions.

Abbreviations

Moral intelligence (ME)

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Authors' contributions

AJ drafted the manuscript and all other members have equally supervised the manuscript. The authors read and approved the final manuscript.

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Ethics approval and consent to participate

Approval for the original study was obtained through a researcher-made consent form, filled by all the participants, so as to ensure information confidentiality. Informed consent obtained was written and signed by the participants. Ethical consent was obtained from ilam University research committee (Approval number: IR.Medilam.1397.177).

Consent for publication

All participants were informed and completed the consent form.

Competing interests

The authors declare that they have no competing interests.

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