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Correlation between moral distress and compassion fatigue in the emergency department nurses: A cross-sectional study from Ardabil Province, Iran

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Abstract:

BACKGROUND: Nurses working in the emergency department increasingly face moral distress due to the nature of their profession, negatively affecting their love and compassion toward the patient. Therefore, this study sought to determine the correlation between moral distress and compassion fatigue in the nurses of the emergency departments of the hospitals in Ardabil.

MATERIALS AND METHODS: The current cross-sectional (descriptive correlational) study was conducted using consensus sampling. The study population comprised all nurses working in the emergency departments of hospitals in Ardabil in 2022. Data were gathered using two standard questionnaires, comprising compassion fatigue by Figley (2002) and moral distress by Hamric *et al.* (2012). The data were analysed using SPSS-20 software and descriptive and inferential statistics, including independent T-test, Pearson's correlation coefficient, and one-way ANOVA.

RESULTS: Moral distress was higher than average in governmental hospitals (2.12±0.58) and below average in private and social security hospitals (1.72±0.68). Besides, the nurses' compassion fatigue was lower than average in all studied hospitals (2.17±0.43). There was also a significant positive correlation equal to 0.29 between moral distress and compassion fatigue in emergency department nurses (P<0.01).

CONCLUSION: According to the results, the higher the level of moral distress, the greater the compassion fatigue. The level of moral distress and its relationship with compassion fatigue reflects the impact of conditions causing moral distress on the quality of care and the necessity to prevent such conditions by providing appropriate solutions. Informing nurses about moral distress and its consequences and providing periodic counseling can contribute to its identification and control.

Keywords:

Compassion fatigue, emergency department, moral distress, nurses

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Introduction

Providing high-quality healthcare services and increasing customer satisfaction with healthcare are among the main goals of healthcare and the most significant responsibilities of healthcare managers.[1] Nurses are actively involved day and night in providing clinical care to clients[2] and are legally and ethically responsible for quality care.[3] Therefore, they should be able to manage ethical challenges and problems effectively.[4]

Moral distress (MD) is one of the most critical moral issues and problems among nurses.[5-7] MD was proposed for the first time by Jumpton (1984), who described

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it as a psychological imbalance caused by ethical decisions that do not lead to ethical performance due to organisational limitations.[8,9]

Previous studies have reported different levels of MD among nurses.[10] For example, one study showed that 23.1%, 45.1%, and 31.8% of nurses had low, moderate, and severe MD, respectively.[11] Another study reported low levels of MD among nurses.[12]

MD may be associated with different problems for nurses, such as burnout, low job satisfaction, poor quality of care, intention to leave the profession, and compassion fatigue.[13-17] Nurses respond to the existing conditions in different ways, including opposition, failure to adapt to the existing conditions, expressing dissatisfaction, and leaving their profession.[18] Meanwhile, some nurses, forced to endure the existing conditions contrary to their desire, gradually refuse to be at the bedside of patients and provide care to them, experiencing frustration and fatigue in providing patients with the required care.[18,19]

Joinson first described compassion fatigue (CF), stating that compassion fatigue refers to the conditions in which the feeling and experience of helping others will be turned off in response to watch patients suffering from major illnesses or trauma.[20-25]

Various factors, such as personality, education, job experience, quality of personal life, workplace, specificity of tasks, and changes in the health system, play a role in causing CF.[23,26] Nurses are prone to developing and increasing CF in emergency and urgent care due to the significant demand and frequent contact with traumatic situations.[27-29]

Peters showed that nurses were predisposed to CF by repeated exposure to others' suffering, high-stress conditions, and the continuous giving of self.[30] In addition, the results of studies conducted in America, Spain, Portugal, and India showed moderate to high CF in nurses.[31-34]

CF appears more in some departments, such as the emergency department, due to the special conditions of patients and the tolerance of pain, suffering, stress, and the threat of losing a life.[35,36] Overcrowding and many referrals to these departments, the acute condition of patients, the need to provide intensive care, facing anxious patients and their companions, stressed clinicians and caregivers, the need to observe ethical and legal aspects, unpredictable costs, and the possibility of occurrence of violence against personnel are among work problems in emergency departments.[37]

On the one hand, moral distress is a critical issue in the nursing profession, and however, nurses face special working conditions in our society from various cultural and organisational aspects, which can lead to specific moral problems and adverse consequences on the quality of care and professional conditions of nurses. Therefore, further research is required to reveal the effect of moral distress on an important issue such as compassion fatigue.

Also, given the lack of local studies that examine the variables of moral distress and compassion fatigue in emergency department nurses, the present study aimed to determine the correlation between these two variables in emergency department nurses in Ardabil. The study aimed to provide a clear picture of the moral distress and compassion fatigue in nurses working in the emergency departments of Ardabil hospitals and develop educational interventions to improve the current situation.

Materials and Methods

Study design and setting

The current cross-sectional (descriptive correlational) study aimed to determine the correlation between moral distress and compassion fatigue in the nurses of the emergency departments of the hospitals in Ardabil.

Study participants and sampling

The statistical population included all nurses working in emergency departments in Ardabil city (N = 283; 21 people did not meet the inclusion criteria and were excluded from the study, leading to a sample size of 262). The research setting was all emergency departments of hospitals in Ardabil, including the public hospitals of Imam Khomeini (n = 117), Dr. Fatemi (n = 46), Alavi (n = 17), Bu Ali (n = 25), and Imam Reza (AS) (n = 17), private hospitals (Arta and Qaem) (n = 8), and social security hospital (Sablan) (n = 32). The research was conducted from April to September 2022.

Having at least a bachelor's degree in nursing, at least one year of work experience in the emergency department, and involvement in direct patient care in the emergency department were the inclusion criteria. Also, lack of consent to participate in the study, lack of cooperation to continue the project, and incomplete completion of the questionnaires were the exclusion criteria.

The sampling method was consensual, and conducted by distributing 283 questionnaires among nurses in the research environment. In total, 262 respondents answered the questionnaires (8 people were excluded due to lack of cooperation and 13 because of less than one year of experience).

Data collection tool and technique

Data were gathered using a questionnaire. The first part of the questionnaire was about demographic

information (age, sex, work experience, marriage, etc.), and the second part consisted of two questionnaires on compassion fatigue and moral distress.[19,38]

Figley] e gathered using a questionnaire. The first part of the questionnaire was about demographic information (age, sex, work experience, marriage, etc.), andThe options related to the compassion fatigue questionnaire are also ranked according to the 6-point Likert scale from zero (never) to five (always). A comparison of the mean score of nurses' CF with the theoretical average (comparison criterion = 2.5, chosen as the median and comparison standard because the options were on a 6-point Likert scale). On the compassion fatigue subscale, scores of 2 or below, between 2 and 3, between 3 and 4, between 4 and 5, and 5 or more indicate an extremely low, low, moderate, high, and extremely high risk of compassion fatigue, respectively.[39,40] The content validity of this questionnaire was assessed and confirmed by experts (CVI = 87%), and Cronbach's alpha was used to obtain its reliability, which was 0.88 for the whole questionnaire.

The 21-item Hamric *et al*.'s standard moral distress questionnaire (2012) was designed for nurses. The scoring method of this questionnaire is based on a 5-point Likert scale from zero (none) to four (very high). In their study, Corley *et al*. divided the score of frequency and severity obtained from the whole scale into three categories: low (0-2), average (2.01-4), and high (4.01-6).[41] The content validity of this questionnaire was assessed and confirmed by experts (CVI = 89%), and Cronbach's alpha was used to obtain its reliability, which was 0.87 for the whole questionnaire.

Questionnaires were distributed among the nurses working in the emergency departments of Ardabil hospitals in different shifts and filled by them.

The data were analysed using SPSS-20 software and descriptive and inferential statistics. Frequency distribution tables, mean, and standard deviation were used for descriptive statistics. Pearson correlation, independent t, and one-way ANOVA were used to analyse the correlation between variables at a significance level of 0.05 ($P < 0.05$). Also, the Kolmogorov-Smirnov test was used to determine the normality of the study variables [Table 1].

Based on the results of Table 1 and considering that the significance level of the test error is >0.05 for the confidence level of 0.95, the distribution of the research variables is normal, and parametric tests can be used to analyse the hypotheses.

Table 1: The Kolmogorov-Smirnov test results to determine the normality of research variables

Statistics	Moral distress	Compassion fatigue
Kolmogorov-Smirnov *Z*	1.18	1.19
significance level	0.12	0.11

Ethical considerations

Ethical considerations of the study included obtaining permission to start work and the code of ethics from the research vice-chancellor of Ardabil University of Medical Sciences, introducing the researcher and explaining research objectives to the subjects, and taking into account their willingness to participate in the research (consent to complete the questionnaire). It should be mentioned that the consent to complete the questionnaire was mentioned in a completely clear and expressive manner in the first part of the research questionnaire. This article is a part of the emergency nursing master's thesis under the code of ethics IR.ARUMS.REC.1401.064, conducted at Ardabil University of Medical Sciences without financial support.

Results

According to the descriptive results, 67.9% of nurses were married, and 32.1% were single. Also, 43.9% of nurses were <30 years old, 43.9% were 30 to 40 years old, and 12.2% were >40 years old. Of the patricians, 93.1% had a bachelor's degree, and 6.9% had a master's degree. It was also shown that 24.4% of nurses had >10 years, and 42% had <5 years of service experience. Finally, 4.2% of nurses stated their income as high, and 59.9% stated their income as average [Table 2].

The results showed higher-than-average levels of moral distress in governmental hospitals (2.12 43.98). The highest amount of MD belonged to Alavi hospital nurses (2.34 ± 0.55), followed by Bu Ali (2.29 ± 0.45) and Imam Reza (2.26 ± 0.52) hospital nurses. Meanwhile, the lowest amount of MD belonged to social security hospital nurses (1.69 ± 0.60).

Therefore, according to the results of the study, MD was higher than average in Fatemi, Bu Ali, Imam Reza, and Alavi hospitals and Imam Khomeini Corona emergency department and below average and low in Imam Khomeini emergency department, private hospitals, and social security hospital [Table 3].

In addition, there was a significant correlation between gender ($P = 0.001$) and income ($P = 0.003$) and MD. According to the results, the mean of MD was higher in male than female nurses. In addition, the results showed that the higher the income, the lower the MD (the significance level of the test error for the confidence level was 0.95).

According to the results in all studied hospitals, the nurses' compassion fatigue was lower than average (2.17. In addition, the resble 4, the highest score

Table 2: Frequency of personal characteristics of participating nurses

Demographic characteristics	Frequency	Percentage
Sex		
Male	95	36.3
Female	167	63.7
Marital status		
Married	78	7.9
Single	84	32.1
Age		
<30 years	115	43.9
30-40 years	115	43.9
>40 years	32	12.2
Education		
Bachelor's degree	244	93.1
Master's degree	18	6.9
Work experience		
<5 years	110	43
5-10 years	88	32.6
>10 years	64	24.4
Employment type	142	54.1
Official	42	16
Contractual	19	7.3
Temporary-to permanent	13	5
Corporate	46	17.6
Service commitment		
Income		
Low	94	35.9
Average	157	59.9
High	11	4.2
Shift		
Fixed	40	15.3
Rotating shift	222	84.7

Table 3: Mean and standard deviation of nurses' moral distress in the emergency department of different hospitals

Hospital	Mean	SD
Dr. Fatemi Educational and Treatment Hospital (Governmental)	2.22	0.62
Bu Ali Educational and Treatment Hospital (Governmental)	2.29	0.45
Imam Reza Educational and Treatment Hospital (Governmental)	2.26	0.52
Alavi Educational and Treatment Hospital (Governmental)	2.34	0.55
Corona emergency of Imam Khomeini Educational and Treatment (Governmental)	2.04	0.62
Internal emergency of Imam Khomeini Educational and Treatment (Governmental)	1.99	0.61
emergency hospitalization of Imam Khomeini Educational and Treatment (Governmental)	1.76	0.73
Private Hospitals (Arta and Qaem)	1.76	0.76
Sablan Social Security Hospital	1.69	0.60
Total	2.04	0.63

of CF belonged to the nurses in Bu Ali (2.27 ± 0.28) and Dr. Fatemi (2.26 ± 0.43) hospitals. Meanwhile, the lowest score belonged to social security hospital nurses (2.07 ± 0.53) [Table 4]. In addition, there was no correlation between any demographic variables with CF in the nurses of emergency departments (the significance level of the test error for the confidence level was 0.95).

There was a significant positive correlation between MD and CF in nurses of emergency departments ($P < 0.01$), and the correlation coefficient was 0.29 [Table 5].

Discussion

According to the results of the study, the average moral distress in the emergency department of Ardabil hospitals was 2.04. Also, the highest mean of MD was related to the emergency nurses of Alavi hospital (2.34), followed by the emergency nurses of Bu Ali (2.29) and Imam Reza (2.26) hospitals. Meanwhile, the lowest average of MDs was related to the social security hospital's emergency nurses (1.69). Besides, MD was higher than average in Dr. Fatemi, Bu Ali, Imam Reza, and Alavi hospitals and Imam Khomeini Corona emergency departments, and lower than average in the Imam Khomeini emergency department, private hospitals, and social security hospital.

Assuming the range of MD between zero and five, the average MD in nurses is in the range of average to high. Most of the conducted studies have reported average to high levels of MD in nurses. According to Mason *et al*., the average MD in nurses was 3.80,[42] while Mohammadi *et al*.[43] and Borhani *et al*.[44] reported average MD values of 3.50 and 2.25 in nurses, respectively.

The results were not consistent with research conducted by Fernandez Parson *et al*.,[45] Anami *et al*.,[13] Mahdavi *et al*.,[46] Nabourehe *et al*.,[47] Ameri *et al*.,[10] Vaziri *et al*.,[48] Alimoradi *et al*.,[49] and Asadi *et al*.,[50] who showed an average to low overall level of MD among emergency nurses. Also, the results were consistent with those obtained by Lane Cahl Aft,[51] Bayat *et al*.,[5] Abbasi *et al*.,[52] Robaee *et al*.,[53] Jill L Guttormson *et al*.,[54] Hosseini Damiri *et al*.,[55] and Al-Turfi *et al*.,[56] all of whom showed that the mean MD in nurses was average to high.

It should be primarily noted that MD puts nurses and patient care workers at risk and may be clearly reflected in behaviours such as withdrawing from patient care. Likewise, nurses experience frustration, anger, and discomfort, resulting in their failure to meet the needs of their patients or their inability to fulfill their duties and obligations towards their patients. Nurses are in groups that face the risk of emotional conflict because of frequent exposure to a large number of sick people and their deaths. MD occurs when individuals know the right action, but a set of factors and obstacles convince them that doing the right action is impossible. Thus, it

Table 4: Mean and standard deviation of nurses' compassion fatigue in the emergency department of different hospitals

Hospital	Mean	SD
Dr. Fatemi Educational and Treatment Hospital (Governmental)	2.26	0.43
Bu Ali Educational and Treatment Hospital (Governmental)	2.27	0.28
Imam Reza Educational and Treatment Hospital (Governmental)	2.25	0.26
Alavi Educational and Treatment Hospital (Governmental)	2.19	0.25
Corona emergency of Imam Khomeini Educational and Treatment (Governmental)	2.24	0.45
Internal emergency of Imam Khomeini Educational and Treatment (Governmental)	2.12	0.43
emergency hospitalization of Imam Khomeini Educational and Treatment (Governmental)	2.05	0.48
Private Hospitals (Arta and Qaem)	2.20	0.71
Sablan Social Security Hospital	2.07	0.53
Total	2.17	0.43

Table 5: Correlation matrix between moral distress and compassion fatigue of nurses

Statistics	Compassion fatigue
Moral distress	
Pearson correlation coefficient	0.29*
Significance level	0.001
Number of samples	262

*Significance at the error level of 0.01

can be said that moral distress is related to reluctance to work, lack of job satisfaction, reduced interaction with patients and their families, and ultimately job burnout.[57] A moral dilemma also appears in addition to moral distress, when it is necessary to pay attention to more than one professional and personal principle, value, and belief in decision-making, but it is not possible to apply and consider them simultaneously. Although it is always necessary to pay attention to all values, it is inevitable to ignore some principles and conflicting values when moral dilemmas arise. MD is often observed as a result of moral decisions in nurses.[58] When the conditions for creating distress are met, different personality traits and adaptation mechanisms of people lead to different reactions. Some become depressed and hopeless and adopt non-adaptive mechanisms, while others try to change the conditions and consequently show conflicts with the relevant organisation and other members of the health team. Still, some accept the existing conditions and are unconsciously affected by the hidden effects of MD in the long run and suffer dissatisfaction and burnout.[59]

As the results showed, most of the studied centres dealing with accident victims or critically ill patients (Dr. Fatemi and Alavi Hospitals) or involved with Covid-19 patients (Imam Reza and Imam Khomeini Covid-19 emergency department) had higher MD scores compared to other hospitals. Especially, the level of MD was much lower in private than in the mentioned hospitals, highlighting the effect of environmental conditions, type of patients, tensions created in the work environment, multiple work shifts, the tension between hospitals and nurses, and especially the deaths caused by accidents and diseases, on the moral distress of nurses. Therefore, the amount of confusion and moral distress increases in crowded centres with high turnover, work pressure and lack of labour force, unnecessary care and tests and procedures for patients, incompetence of some coworkers, high demands of the patients and their families, and decision-making for patients at the end of life. The effect of these factors on the formation and development of moral distress depends on the workplace and individual characteristics. Many studies have reported different levels of moral distress at a range of average to high, depending on the type of department, and more evident in departments such as emergency.

According to the results, the level of nurses' compassion fatigue was lower than average in all studied hospitals (2.17 rkplace and individual characteristics. Many studies have reported different levels of moral distress at a range of average to high, depending social security hospital nurses (2.07 ± 0.53). Overall, the CF level of nurses was less than the mean in all hospitals.

These results were not consistent with those of Jarrad and Hammadin all studied hospitals (2.17 rkplace and individual characteristics. Many s[60] In addition, the results did not agree with the results obtained by Ruiz Fernandez *et al*., who reported high levels of burnout and CF.[61] In addition, our results were not in line with the findings of Ariapooran *et al*.,[62] Noghanchi Saleh *et al*.,[63] Mohammadi *et al*.,[64] Hinderer *et al*.,[65] and Roshanzadeh *et al*.,[43] all of whom reported moderate to high levels of CF in nurses.

It is worth noting that nurses aim to help people who have physical, mental, or emotional needs and have visited the hospital. Helping others is a satisfying activity for nurses, but this assistance and compassion can affect their physical and mental health. In addition, the step-by-step treatment of patients causes the dual behaviour of love and hate in nurses according to their characteristics and level of empathy. Patient transference fatigue is the emotional impact or consequence of a vicarious event, which is created with the help of the person who first directly experienced the event and can be the compensation paid by the caregiver.[61] This phenomenon develops over time as a result of interaction with underlying conditions, and the risk of its occurrence is not the same for all people and not necessarily the same for all people with the above CF symptoms. The two main symptoms of this event are

fatigue and anxiety, but milder symptoms such as exhaustion and the need to rest are sometimes seen as symptoms as well. This phenomenon, also known as secondary stress, is common among doctors, counselors, nurses, and nursing groups. Its symptoms are similar to those of PTSD and can manifest as fear, anxiety, mood swings, difficulty concentrating, low self-esteem, withdrawal from others, and physical symptoms such as headaches and fat burning. If this issue is not addressed, it may cause depression and mental and psychological damage to people, decreasing the quality and effect of care and gradually making people careless and indifferent. However, this phenomenon is preventable through different approaches, and various factors such as individuals' support systems, the ability to share feelings with others, and the capability to manage conflict all influence how one reacts to the situation.[62]

The findings of our research showed that CF was low in almost all nurses but did not reach a critical point. In other words, nurses have not yet reached the level of CF to be indifferent to patients, underestimate their wishes, or deny them special care. Compassion fatigue can be largely prevented or reduced by improving working conditions and familiarising nurses with this phenomenon.[66]

In addition, there was a significant correlation between gender and income with MD among the nurses of the emergency departments. The mean score of MD was higher in male nurses than in females, and the higher the income, the lower the MD. These results were consistent with the findings of Ruiz- Fernandez *et al*.,[61] Fernandez-Parsons *et al*.,[45] Anami *et al*.,[13] and Ebrahimi *et al*.[67] However, lack of financial incentives, low salaries and benefits, and even the amount of household income can reduce job motivation in nurses, subsequently increasing MD. Therefore, as confirmed in this research, family income is expected to affect the MD level of nurses.

Finally, the results showed a significant and positive correlation between MD and CF among the nurses of emergency departments of hospitals ($P < 0.001$). These results were consistent with the findings of a study conducted by Mason *et al*., who reported a correlation between CF and MD.[42] The results were also consistent with research conducted by Heidarisharaf *et al*.,[68] Mohammadi *et al*.,[43] Poladi *et al*.,[69] Noghanchi Saleh *et al*.,[63] and Andrea *et al*.,[70] who showed a positive correlation between MD and CF.

Studies have shown that nurses are more prone to developing moral distress than other healthcare providers because they work closely with patients. MD has always been associated with a negative effect on mental health in the form of anxiety and failure in the professional life of nurses, and continuous MD leads to a decrease in job satisfaction, job burnout, decreased job retention, leaving the profession, minimal interaction with patients and families, and aggravation of shortage of nurses. The continuation of this trend and the increase in the level of MD among nurses will lead to a decrease in the level of compassion toward patients.[30] Therefore the higher the level of MD among emergency department nurses for various reasons, the higher the level of CF.

The strengths of the study are as follows:

1. Examining all service-providing hospitals (public, private, etc.);
2. Surveying all nurses in the emergency departments of the studied hospitals; and
3. Investigating the relationship between moral distress and compassion fatigue in the emergency department of hospitals in Iran for the first time.

Limitations of the study are as follows:

1. Pessimism and a lack of nurses' familiarity with research made work difficult and limited. Besides, it was not possible to go to the hospital at any hour of the day to fill out the questionnaires.
2. The statistical population was limited to nurses in emergency departments of medical hospitals in Ardabil city.
3. The research only used questionnaires to collect data, and there were restrictions on using interview tools.
4. Data collection was carried out by questionnaire and self-assessment method, which increases the possibility of bias.

Conclusion

According to the results, the higher the level of moral distress, the greater the compassion fatigue. Therefore, the level of moral distress and its relationship with compassion fatigue reflects the impact of conditions that cause moral distress on the quality of care and the necessity to prevent such conditions by providing appropriate solutions.

Considering the high level of MD of nurses in the studied centres, the following suggestions are made to control and reduce the MD of nurses:

Hospital managers are suggested to consider the spiritual and psychological needs of the nurses in addition to their physical needs, especially during critical conditions, and take the necessary actions to solve their problems to provide grounds for controlling MD among them.

It is suggested that hospital managers seek help from psychological consultants to prevent the emergence of CF when nurses face a lot of mental pressure in dealing

with the work environment. It is also suggested that hospital managers try to divide the assigned tasks in such a way that the job duties of the nurses are not disturbed, the nurses are not psychologically offended, and the conditions for CF of the nurses are reduced. In addition, they are suggested to use the temporary job rotation system with the nurses' own will to prevent their CF. Besides, hospital managers should continuously survey the nurses about the working environment and conditions to use their guidance for working conditions improvement and burnout control.

Suggestions for future research

- The research can be carried out on a wider statistical population and in different departments of public and private hospitals to compare the results.
- Future studies can use interviews in addition to questionnaires to collect data.
- It is suggested to include the researchers' observations in the research results in addition to the results of the questionnaires.

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Conflict of interests

The authors declare no conflict of interests.

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