

RESEARCH ARTICLE



# Investigation of Compassion Fatigue in the Emergency Department Nurses: A Cross-sectional Study from Northwest of Iran

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## Abstract:

**Background and Objectives:** In today's modern society, work-related stress has been accepted as a job threat which can reduce compassion satisfaction and cause compassion fatigue. Healthcare providers in critical care and emergency departments may experience high levels of compassion fatigue, which will lead to an impaired quality of professional life. Therefore, this study sought to Investigate of compassion fatigue in the nurses of the emergency departments of the hospitals in Ardabil.

**Material 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 standard questionnaire compassion fatigue by Figley (2002). The data were analyzed using SPSS - 20 software and descriptive s (mean, standard deviation and frequency) and inferential statistics, including independent T-test and one-way ANOVA.

**Results:** According to the results in all studied hospitals, the nurses' compassion fatigue was lower than average ( $2.17 \pm 0.43$ ). In addition, there was no correlation between any demographic variables with compassion fatigue in the nurses of emergency departments (the significance level of the test error for the confidence level was 0.95).

**Conclusions:** Although the levels of compassion fatigue were lower than average, both may negatively affect nurses' care and patient outcomes. Informing nurses about compassion fatigue and its consequences and providing periodic counseling can contribute to its identification and control.

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**Keywords:** Compassion fatigue, nurses, emergency department.

## 1. INTRODUCTION

Providing high-quality healthcare services and increasing customer satisfaction with healthcare are among the key 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]

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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 diminished in response to watching suffering from major illnesses or trauma. [5-10]

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. [8,11] Nurses are prone to developing and increasing CF in emergency and urgent care due to the significant demand and frequent contact with traumatic situations. [12-14]

Peters showed that nurses are predisposed to CF by repeated exposure to others' suffering, high-stress conditions, and the continuous giving of self. [15] In addition, the results of studies conducted in America, Spain, Portugal and India showed moderate to high CF in nurses. [16-19]

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. [20, 21] 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. [22]

On the one hand, CF is a critical issue in the nursing profession, and on the other hand, nurses face special working conditions in our society from various cultural and organizational aspects, which can lead to specific moral problems and adverse consequences on the quality of care and professional conditions of nurses. Therefore, the study aimed to provide a clear picture of the compassion fatigue in nurses working in the emergency departments of Ardabil hospitals and develop educational interventions to improve the current situation.

## **2. MATERIALS & METHODS**

### **2.1. Study Design and Setting**

The current cross-sectional (descriptive correlational) study aimed to investigation of compassion fatigue in the nurses of the emergency departments of the hospitals in Ardabil Province, Iran.

### **2.2. 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, conducted by distributing 283 questionnaires among nurses in the research environment. Totally, 262 respondents answered the questionnaires (8 people were excluded due to lack of cooperation and 13 because of less than one year of experience).

### **2.3. 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 of the questionnaire was about compassion fatigue. [23]

Figley's questionnaire consists of three subscales: satisfaction with compassion (10 questions), burnout (10 questions), and compassion fatigue (10 questions). The 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. [24, 25] 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.

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

The data were analyzed using SPSS-20 software and descriptive and inferential statistics. Frequency distribution tables, mean, and standard deviation were used for descriptive statistics. Independent t, and one-way ANOVA were used to analyze 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).

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

Statistics	Compassion fatigue
Kolmogorov-Smirnov z value	1.19
significance level	0.11

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 analyze the hypotheses.

## 2.4. 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.

## 3. 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).

According to the results in all studied hospitals, the nurses' compassion fatigue was lower than average ( $2.17 \pm 0.43$ ). As seen in Table 4, the highest score of CF belonged to the nurses in Bu Ali ( $2.27 \pm 0.28$ ) and Dr. Fatemi ( $2.26 \pm 0.43$ ) hospitals. Meanwhile, the lowest score belonged to social security hospital nurses ( $2.07 \pm 0.53$ ) (Table 3).

**Table 2: Frequency of personal characteristics of participating nurses**

Demographic Characteristics	Frequency	Percent
<b>Sex</b> Male	95	36.3
Female	167	63.7
<b>Marital status</b> Married	178	67.9
Single	84	32.1
<b>Age</b> <30 years	115	43.9
30 to 40 years	115	43.9
>40 years	32	12.2
<b>Education</b> Bachelor's degree	244	93.1
Master's degree	18	6.9
<b>Work experience</b> <5 years	110	43
5 to 10 years	88	32.6
>10 years	64	24.4
<b>Employment type</b> Official	142	54.1
Contractual	42	16
Temporary-to permanent	19	7.3
Corporate	13	5
Service commitment	46	17.6
<b>Income</b> Low	94	35.9
Average	157	59.9
High	11	4.2
<b>Shift</b> Fixed	40	15.3
Rotating shift	222	84.7

**Table 3: Mean and standard deviation of nurses' compassion fatigue in the emergency department of different hospitals**

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

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).

#### 4. DISCUSSION

According to the results, the level of nurses' compassion fatigue was lower than average in all studied hospitals ( $2.17 \pm 0.43$ ), with the highest scores of CF belonging to the nurses in Bu Ali ( $2.27 \pm 0.28$ ) and Dr.

Fatemi ( $2.26 \pm 0.43$ ) hospitals and the lowest to social security hospital nurses ( $2.07 \pm 0.53$ ). Overall, the CF level of nurses was less than the mean in all hospitals.

These results were not consistent with those of Jarrad and Hammad's study, indicating that burnout and CF were average and high, respectively. [26] In addition, the results did not agree with the results obtained by Ruiz Fernandez *et al.*, reporting high levels of burnout and CF. [27] In addition, our results were not in line with the findings of Ariapooran *et al.* [28], Noghanchi Saleh *et al.* [29], Mohammadi *et al.* [30], Hinderer *et al.* [31], and Roshanzadeh *et al.* [32], 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 behavior 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. [33] 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. [34]

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 familiarizing nurses with this phenomenon. [35]

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).

Studies have shown that 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. CF 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 CF leads to a decrease in job satisfaction, job burn-out, decreased job retention, leaving the profession, minimal interaction with patients and families, and aggravation of shortage of nurses.

## 5. STRENGTHS OF THE STUDY ARE AS FOLLOWS

Examining all service providing hospitals (public, private, etc.);

Surveying all nurses in the emergency departments of the studied hospitals

Limitations of the study are as follows:

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.

The statistical population was limited to nurses in emergency departments of medical hospitals in Ardabil city.

The research only used questionnaires to collect data, and there were restrictions on using interview tools.

Data collection was carried out by questionnaire and self-assessment method, which increases the possibility of bias.

## CONCLUSION

The level compassion fatigue reflects the impact of conditions causing compassion fatigue on the quality of care and the necessity to prevent such conditions by providing appropriate solutions. Informing nurses about compassion fatigue and its consequences and providing periodic counseling can contribute to its identification and control.

Considering the importance of CF in the nursing profession and nurses' performance, the following suggestions are made to control and reduce the CF 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 CF 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. 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.

## DECLARATION BY AUTHORS

Ethical Approval: Approved

## SOURCE OF FUNDING

None

## CONFLICT OF INTERESTS

The authors declare no conflict of interests.

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