

Moral distress among nurses working in Covid-19 wards: a cross-sectional study in 2021

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Abstract

Background

Covid-19 is an emerging disease, which has confronted nurses with new moral distress. This study aims to determine the moral distress and its related factors among nurses working in the covid-19 wards of Ardabil city in Iran.

Methods

This cross-sectional descriptive study evaluated 159 nurses working in the covid-19 wards of Imam Khomeini hospital -as the only hospitalization center for the patients with covid-19 in Ardabil, 2021. The instruments used included a personal-occupational information form and Corley's moral distress scale. Data analysis was performed using descriptive and inferential statistics (Pearson correlation coefficient, independent t-test and one-way analysis of variance) in SPSS v22.

Results

The mean and standard deviation of the frequency and intensity of the nurses' moral distress were estimated 52.28 ± 5.24 and 51.54 ± 5.86 , respectively, which indicated the moderate level of moral distress in the both dimensions. The item "I hesitate to tell the patient or the patient's family about his condition and treatment" (4.74 ± 0.75) showed the most moral distress based on the intensity and the phrase "too much work reduces the quality of my work" (4.81 ± 0.55) caused the most moral distress in the frequency dimension. The results indicated a significant relationship between the intensity and frequency of moral distress with the type of nurses' employment ($P < 0.05$). Moreover, a significant relationship was observed between the nurses' position and the frequency ($P = 0.04$), and the nurses' work experience and the intensity of moral distress ($P = 0.02$).

Conclusions

It seems that providing the necessary training for how to deal with the moral distress in new waves of the disease and using the experiences of the experienced nurses in this field are essential due to observing the moderate level of moral distress among nurses working in covid-19 wards.

Background

Morality is an inseparable part of human life, which explains the right from the wrong or the good from some bad behaviors (1). Ethics is necessary in occupations in addition to the personal life, which is even more necessary in the nursing profession due to the spiritual behaviors associated with nurses' responsibility in saving patients' lives (2). The importance of doing moral work becomes even more since

nurses work in a system, which is constantly changing and evolving. Further, the society demands the high quality services of nurses based on the existing conditions (3).

Moral behavior is an important feature of nurses, which has a significant effect on the treatment process (4). Caring the patients in various physical, mental, psychological, and spiritual aspects is always associated with the moral considerations. Nursing is inherently considered as the moral profession since it emphasizes the care of others (5). Nowadays, paying attention to legal and ethical issues in nursing is more important due to the advancement of technology, medical and pharmaceutical equipment (6). Nurses are forced to face different aspects of ethics since they usually present at the patients' beds and communicate closely with them causing the moral decisions and comments (7). Therefore, they face an unpleasant experience called moral distress (MD) (8).

Initially described by Andrew Jameton in 1984, MD is defined as knowing what to do in an ethical situation, but not being allowed to do it. He reported that the moral distress causes the anger, frustration, anxiety, headache, sadness, grief, depression, as well as conflict between doing the right thing and organizational rules (9). Corley considered the moral distress as a major problem in nursing (10). Moral distress is an emotional and mental disorder in which a person commits a mistake while being aware of the right decision and having the necessary ability to judge and make decisions due to real and organizational moral limitations (11, 12). Nurses are exposed to moral distress due to the factors such as shortage of time and lack of specific organizational rules, which disrupts their decision-making process and psychological balance (13). Various studies referred to the level of moral distress in nurses. Abbaszadeh et al. indicated the moderate moral distress of the nurses in different wards (14). However, Altaker et al. demonstrated that the high levels of the moral distress were observed among the nurses working in the intensive care units (15). Moreover, Jalali et al. reported the high moral distress of the nurses in emergency department (16).

Based on the studies, the type of the environment of the work is effective in the occurrence of nurses' moral distress (17). The emergency department due to the direct contact with the patients and staff, high workload, and lack of the necessary facilities (18, 13), and the intensive care unit for high exposure of the nurses to the patient mortality are considered as the stressful situations (19). During Coronavirus Disease (COVID-19) Pandemic, problems such as the increased stress, faster care, use of personal protective equipment, not allowing patients' families to visit due to their risk of infection, and many other factors make the situation more critical in addition to previous stressors (20). Moreover, working in unfamiliar environments, participating in unknown processes, workforce shortages, existing more the patients in need of the urgent care at the same time, fear of infection, new waves of the disease, deadly nature, and disease disability are challenged the nurses' decision-making between doing what is morally right and doing what is cost-effective (20, 21).

The occurrence of moral distress is predictable in nurses following the spread of the disease, which causes the placement of nurses at the forefront of the struggle and endangering their lives (22, 23). The serious moral and emotional stress is caused due to the unprecedented experience of covid-19 disease,

which is a new global pandemic (24), as well as the ongoing and difficult work of nurses during epidemics (25) and the respect for the patient's rights referring to the effort to balance all conditions (26). Moreover, nurses caring for the patients with covid-19 disease faced the problems such as unknown work environment, exposure to the disease, lack of experience in seeking new diseases, as well as more public and media attention, which could expose the nurses to the moral challenges (27), affect adversely the quality of care, and interfere with the patient treatment. Therefore, it seems necessary to be aware of the level of moral distress in nurses in these wards. In this regard, this study aims to determine the level of moral distress and its related factors in the nurses working in covid-19 wards of Ardabil city.

Methods

Study design and participants

In this cross-sectional descriptive study, all the nurses working in the covid-19 wards of Imam Khomeini Hospital in Ardabil including emergency, inpatient, dialysis, intensive care units, and nursing office in 2021 who met the inclusion criteria were included in the study based on the census method (n=159). Inclusion criteria included having at least a bachelor's degree in nursing, having worked in the covid-19 wards for at least one month, and the absence of life crises such as divorce, death of loved ones, etc. during the past six months.

Measurements

Data collection tools included a form of the personal-occupational characteristics including age, gender, marital status, level of education, duration of nursing work, workplace ward, job position, shift work, and type of employment and the *Corley's Moral Distress Scale (MDS)*. This questionnaire has 21 items, which measures the frequency and intensity of the moral distress with five-point Likert and the options are scored 0-5 in each section. The scores are considered from 0 (not at all) to 5 (very high) in the intensity section, and from 0 (never) to 5 (frequent) in the frequency section. Scores 0-70, 70-140, and 140-210 indicate the mild, moderate and sever moral distress, respectively. Numerous studies used this questionnaire. Roshanzadeh et al. calculated the validity and reliability of this tool in Iran. Ten experienced people in the field of ethics examined its validity and its content validity index was determined 88%. Moreover, its reliability was calculated 93% by using Cronbach's alpha coefficient (28), which indicated its appropriate reliability.

Data collection and ethical considerations

The study was approved by the ethics code from the Ethics Committee in Biomedical Research at Ardabil University of Medical Sciences (ARUMS) (ethic code IR.ARUMS.REC.1399.462). The researchers obtained written informed consent from each participant as one of the criteria for them to join the study. The consent form outlined that participation is voluntary, participant anonymity will be protected, participants may withdraw their participation whenever they desire with no repercussions. All methods were carried out in accordance with relevant guidelines and regulations. After then, the participants were provided with

the questionnaires after explaining the objectives of the study to them. Data collection was considered as the self-reported. In this study, the questionnaires were distributed among the nurses working in covid-19 wards (223 people), 71.3% (159 people) of which were completely filled.

Data analysis

The collected data were analyzed by using descriptive (frequency, mean, and standard deviation) and inferential statistics (Pearson correlation coefficient, independent t-test, and one-way analysis of variance) in SPSS version 22. A two-sided p-value of less than 0.05 was considered statistically significant.

Results

General characteristics of the participants

The mean age of the respondents was 31 ± 5.7 years; 83.6% were women and more than half (56%) were married and had a mean work experience of 8.35 ± 5.6 years (Table 1).

Table 1: Frequency distribution of demographic characteristics of participants

| Variables | Categories | Number | Percentage |
|--------------------------|--------------------------------|---------------|-------------------|
| Gender | Male | 26 | 16.4 |
| | Female | 133 | 83.6 |
| Marital status | Single | 70 | 44 |
| | Married | 89 | 56 |
| position | Nurse | 144 | 90.5 |
| | Head nurse | 6 | 3.8 |
| | Supervisor | 9 | 5.7 |
| Work shift | Fixed morning | 17 | 10.7 |
| | Fixed evening | 2 | 1.2 |
| | Fixed night | 0 | 0 |
| | Shifts in circulation | 140 | 88.1 |
| Employment Status | Permanent | 77 | 48.42 |
| | Under-a-contract / Contractual | 42 | 26.41 |
| | Conscription law's conscripts | 16 | 10.07 |
| | Temporary-to Permanent | 24 | 15.1 |

Level of moral distress

Based on the results, 157 of 159 nurses had moderate moral distress in frequency and all the nurses reported the moderate levels of moral distress in intensity. Mean and standard deviation of frequency and intensity scores of moral distress in the studied nurses were 52.28 ± 5.24 and 51.54 ± 4.86 , respectively, which indicated the moderate level in both dimensions of moral distress (Table 2).

Table 2: Frequency and intensity of moral distress in participants

| Moral distress | Low | Moderate | High | Mean±SD |
|-----------------------|--------------|-----------------|--------------|------------------|
| | N (%) | N (%) | N (%) | |
| Frequency | 1 (0.62) | 157 (98.74) | 1 (0.62) | 52.28 ± 5.24 |
| Intensity | 0 | 159 (100) | 0 | 51.54 ± 4.86 |

As shown in Table 3, among 21 items related to the moral distress questionnaire of nurses working in covid-19 wards, the items "I hesitate to tell the patient or the patient's family about his condition and treatment" with the highest mean and standard deviation (4.74 ± 0.75) and "I care about patients' feelings and emotions" with the lowest mean and standard deviation (1.32 ± 1.11) caused the severe moral distress in the nurses. Moreover, the items "too much work reduces the quality of my work" and "I have experienced conflict with my colleagues" with a mean and standard deviation of 4.81 ± 0.55 and 1.35 ± 1.06 , respectively, showed the highest and lowest frequency among the items of moral distress.

Table 3: Mean and standard deviation of moral distress items in participants

| Items | Intensity | Frequency |
|---|-----------|-----------|
| | Mean±SD | Mean±SD |
| The pressure of reducing organizational costs forces me to provide low quality care. | 1/48±1/25 | 1/48±1/22 |
| Too much work reduces the quality of my work. | 4/53±0/87 | 4/81±0/55 |
| When the patient's death was certain, I applied for an organ donation with the patient's family. | 1/52±1/10 | 1/39±1/18 |
| I have struggled with superiors and / or managers at work. | 1/09±1/07 | 0/90±0/82 |
| I accept the patient's family request to continue caring for the patient, although I feel it is of little benefit to the patient. | 2/76±1/22 | 2/73±1/26 |
| In most cases, I consider myself ultimately responsible for the patient's health status. | 3/28±1/22 | 3/25±1/23 |
| When I perform resuscitation, I know that it delays my death. | 2/22±1/62 | 2/36±1/68 |
| Most people do not approve of me as a nurse deserves and do not respect me. | 1/53±1/24 | 1/52±1/25 |
| I do not talk about death with a dying patient, even if her family asks me to. | 2/19±1/46 | 2/14±1/49 |
| I hesitate to tell the patient or the patient's family about her condition and treatment. | 4/74±0/75 | 4/69±0/78 |
| I follow the doctor's instructions regarding incurable patients, even if I think it is unnecessary. | 2/92±1/56 | 1/50±1/10 |
| I care about the feelings and emotions of my patients. | 1/32±1/11 | 4/56±0/83 |
| I may disagree with other members of the treatment team about treating the patient. | 1/71±1/02 | 1/75±1/08 |
| I have continued to care for a sick patient who is not in a promising condition while no one has decided to end the patient's life. | 4/63±0/82 | 3/11±1/63 |
| Sometimes I do not have the opportunity to share my feelings and experiences with my colleagues. | 1/34±1/06 | 1/40±1/15 |
| I have experienced conflict with my colleagues. | 1/36±1/05 | 1/35±1/06 |
| Sometimes, despite the patient's request to hear the truth, I do not tell her the truth for the sake of expediency. | 2/28±1/32 | 2/36±1/40 |
| My work responsibilities have been incompatible with my family | 1/61±1/08 | 1/65±1/22 |

responsibilities.

| | | |
|---|-----------|-----------|
| I have involved my feelings and emotions in caring for the patient. | 1/06±1/08 | 1±0/93 |
| I helped a doctor who I thought was doing the wrong thing. | 3/76±1/37 | 4/08±1/25 |
| In order to maintain my professional competence, I keep up with new developments. | 4/24±0/93 | 4/26±0/89 |

Factors associated with moral distress

One-way analysis of variance and independent t-test were used for determining the relationship between the demographic characteristics of the participants and their moral distress. Based on the results, a significant relationship was observed between the type of employment and the intensity and frequency of the moral distress ($p < 0.05$). Further, there was a significant relationship between the job position and the frequency of moral distress ($P = 0.04$). Nurses who worked under the temporary-to permanent employment status experienced more moral distress than other nurses (Table 4).

Table 4: Relationship between demographic characteristics and nurses' moral distress

| | Variables | Intensity | p- | Frequency | p- |
|-------------------|--------------------------------|------------|-------|------------|-------|
| | | Mean±SD | value | Mean±SD | value |
| Gender | Male | 53/65±7/15 | 0.10 | 53/53±6/00 | 0.18 |
| | Female | 51/12±5/25 | | 52/04±5/06 | |
| Marital status | Single | 51/37±7/32 | 0.76 | 51/57±6/03 | 0.14 |
| | Married | 51/67±4/44 | | 52/58±4/47 | |
| Position | Nurse | 51/75±6/01 | 0.22 | 52/58±5/29 | 0.04 |
| | Head nurse | 47/66±3/88 | | 47/50±3/39 | |
| | Supervisor | 50/66±3/46 | | 50/77±3/63 | |
| Work shift | Fixed morning | 50/52±4/90 | 0.71 | 50/70±4/71 | 0.23 |
| | Fixed evening | 53/00±2/82 | | 56/50±2/12 | |
| | Fixed night | 0 | | 0 | |
| | Shifts in circulation | 51/64±6/01 | | 52/42±5/29 | |
| Employment Status | Permanent | 50.08±5.02 | 0.005 | 51/53±5/09 | 0.04 |
| | Under-a-contract / Contractual | 51.21±4.90 | | 53/04±4/66 | |
| | Conscription law's conscripts | 52.23±7.95 | | 50/30±6/45 | |
| | Temporary-to Permanent | 55±7.18 | | 54/22±5/38 | |
| | | | | | |

The relationship between the intensity and frequency of moral distress and the age and work experience of the nurses was evaluated. The results of Pearson correlation coefficient test showed a statistically significant relationship between the nurses' work experience and the intensity of moral distress (p= 0.02).

Table 5: Relationship between frequency and intensity of moral distress with age and work experience

| Variables | Mean±SD | Frequency | Intensity |
|-----------------------------|------------|----------------------|----------------------|
| Age (year) | 31/72±5/75 | r = -0.06 p =0.39 | r = -0.13 P =0.08 |
| Years of nursing experience | 8/35±5/62 | r = -0.11 p=0.16 | r = -0.17 p =0.02 |

Discussion

The results of this study conducted to determine the level of moral distress and its related factors in nurses of Ardabil covid-19 wards indicated the moderate level of moral distress. Various studies performed in this field reported different results. The studies of Bayat et al. (2019), Ebrahimi et al. (2015), and Lusignani et al. (2016) conducted in Iran and Italy, respectively, showed the nurses' moral distress at moderate level (13, 29, 30), which these results are in line with those of the present study. However, some other studies reported the low or high levels of nurses' moral distress. The study of Mosallanejad et al. (2021) entitled "Assessment of the level of moral distress in nurses and physicians caring for patients with Covid-19 in Jahrom" indicated the low level of moral distress among the participants (31). Moreover, the studies of Amiri et al., Houston et al., and Beyaffers et al. reported the high moral distress of the nurses in different wards (32–34). Factors including the cultural differences, lack of personal care, hospital equipment and facilities, workplace environment, economic situation, organizational rules and regulations, and nurses' ignorance of how to deal with the issue of moral distress could be considered as the reasons for the difference in the results.

Evaluating the relationship between the demographic characteristics and the level of moral distress of the nurses showed that there was a significant relationship between the type of employment and moral distress. Based on the results, the moral distress in temporary-to permanent nurses was more than other nurses. This may be due to the temporary work in the covid-19 conditions and their uncertain future. Further, the results showed a statistically significant difference between the level of moral distress and the position of nurses working in the Covid-19 wards. Nurses experienced more moral distress compared to the head nurses and supervisors, which is consistent with the results of the study of Wu Xiaoyan et al. (35). More and more direct exposure of the nurses to the patients with Covid-19 and fear of contracting the disease due to contacting with them can be the reasons justifying this issue.

In the present study, a negative correlation was observed between the nursing work experience and the intensity of nurses' moral distress, which indicated that the severity of moral distress decreased by increasing the years of nurses' duty, which is in line with the results of the study of Sadeghi et al. (13). It seems that the nurses can find solutions for adapting to these stresses by increasing the work experience and gaining more experience for more stressful environmental conditions. Based on the results, no significant difference was observed between the mean scores of the intensity and frequency of moral distress and the marital status of the nurses, which is consistent with those of the studies of Mosallanejad et al. and Sadeghi et al. (31, 13). Moreover, no significant relationship was found between

the shift work and the intensity and frequency of moral distress, which is in line with the results of the study of Altaker et al. (15).

Completing the questionnaire by using self-report method was one of the limitations of this study since the individual characteristics such as job and psychological status can affect the answer to the questions. Therefore, it is recommended that another qualitative study should be performed on the nurses involved in the care of patients with corona virus for obtaining more accurate results.

Conclusion

The results indicated that almost all of the nurses evaluated in this study had some degree of moral distress. The frequency and intensity of the moral distress were found more in temporary-to permanent nurses compared to the nursing managers and nurses in other employment situations. Special attention should be paid to the mental state of the nurses involved with Covid-19 patients by organizational managers since moral distress in nurses can affect the quality and safety of the patient care (36). Using the experiences of the nurses, who were mostly present in the patients' beds and were involved in direct care of patients with various diseases can be useful in reducing the moral distress of covid-19 wards nurses. Further, the use of non-contract nurses in corona wards can be effective in reducing the moral distress.

Abbreviations

MD
Moral distress
ICU
Intensive care unit
COVID-19
Coronavirus Disease.

Declarations

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Authors' contributions

MA designed the study, reviewed the results, and wrote the manuscript and approved the final manuscript. MP participated in data collection, data analysis, and writing the first draft of the manuscript. MA and MP read and approved the final manuscript.

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Availability of data and materials

The data supporting the findings are available from the corresponding author on request by the journal.

Declarations

Ethics approval and consent to participate

The study was approved by the Ethics Committee in Biomedical Research at Ardabil University of Medical Sciences (ARUMS). The researchers obtained written informed consent from each participant as one of the criteria for them to join the study.

Consent for publication

Not Applicable.

Competing interests

The authors declare that they have no competing interests.

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