Abstract

**Background and Purpose:** Considering the obstacles against the implementation of ethical decisions by nurses, experiencing moral distress is one of the major issues in this profession. Moral distress could have negative effects on the physical and mental health of nurses, quality of patient care and performance of health organizations. Given the importance of addressing moral distress in working environment of nurses, this descriptive study aimed to evaluate the level of moral distress and the contributing factors among nurses in different hospitals affiliated to Shahroud University of Medical Sciences in 2014.

**Methods:** This descriptive study was conducted on 122 nurses engaged in intensive care units (ICUs), internal medicine wards, surgical wards and emergency sections of different hospitals affiliated to Shahroud University of Medical Sciences. Survey sampling was the method of choice, and all the subjects met the inclusion criteria. Data collection was performed using demographic questionnaires and Corley’s Moral Distress Scale-Revised (MDS-R). Data analysis was performed using descriptive statistics, including independent T-test, Pearson's correlation coefficient and one-way ANOVA.

**Results:** In this study, means of frequency and intensity of moral distress were relatively high among the subjects. Considering the significant difference between moral distress in nurses engaged in different wards (P=0.01), the highest and lowest rates of intensity were observed in nurses of ICUs with a mean of 3.29±1.49, and those in surgical wards with a mean of 1.81±0.66. Among professional and demographic variables, feeling supported by the head nurse (P=0.03) and the age of nurses (P=0.001) had a significant correlation with the level of moral distress.

**Conclusion:** According to the results of this study, identification of clinical environments involving high moral distress, as well as the main causes of moral distress in nursing managements, could contribute to the prevention of this problem among the nursing staff.

**Keywords:** Emergency Unit, Futile Medical Care, Intensive Care Unit, Moral Distress, Nurses

Introduction

Moral distress is an important issue in the field of nursing, and nurses engaged in different sections of health care centers may experience this problem inadvertently (1). In the provision of patient care, nurses must make ethical decisions occasionally (2, 3) and are expected to adhere to moral principles in their performance. However, several studies have indicated that many nurses tend to feel unsupported and incapable of confronting their moral issues (3). Due to the obstacles in clinical environments, nurses may not be able to reach moral decisions easily, and experience moral distress as a result of committing themselves to ethics. Therefore, moral distress among nurses needs to be given priority in clinical settings.

Moral distress was first studied by Corley, and the results indicated that 80% of nurses experienced moderate to high levels of moral distress at their working environment (1). Moral distress has noticeable adverse effects on nurses, patients and
health organizations. Nurses who undergo moral distress may often experience feelings of anger, frustration and guilt. Moreover, moral distress could lead to long-term debilitating effects on the physical and mental health of these individuals (4).

Some of the most significant complications caused by moral distress are inability in appropriate patient care, occasional quitting of the workplace and career change (4-6). On the other hand, restricting the nursing staff to implement specific moral measures may result in the increased rate of moral distress among them. These moral measures are generally classified into internal factors (i.e., factors related to the behavior of nurses) and external factors. Some examples of external restricting factors include poor interaction between health care team members, pressure for the reduction of treatment costs, lack of support from the management and hospital policies (7,8).

Since multiple factors could affect the rate of moral distress, identification of the most significant influential parameters is necessary. According to the literature, the ethical obligations imposed by organizational factors play a pivotal role in inducing moral distress in nurses. However, internal factors have been reported to be most influential on experiencing moral distress in other studies (1).

In order to manage and prevent moral distress among nurses, recognition of the influential factors, as well as the working environments, is of paramount importance (8). In the studies conducted in Iran, only specific wards and units, such as intensive care units (ICUs), have been evaluated with regard to moral distress among nurses (9-11), and information is scarce on the level of moral distress in nurses engaged in other health sections (12, 13). This study aimed to investigate each of the influential factors and their impact on the level of moral distress among nurses.

**Materials and Methods**

This descriptive study was conducted on 122 nurses engaged in ICUs, internal medicine wards, surgical wards and emergency sections of hospitals affiliated to Shahroud University of Medical Sciences, Iran. Survey sampling was the method of choice, and the inclusion criteria of the study were at least one year of clinical experience in relevant wards or units and bachelor’s degree in nursing. Data collection was performed using questionnaires consisting of three parts.

The first part of the questionnaire focused on the demographic and occupational information of the subjects, including age, gender, marital status, education status, employment status, general clinical experience, clinical experience in the current ward/unit, working shifts, name of hospital, name of ward/unit, number of employees engaged in the ward/unit, number of beds in the ward/unit and monthly income. Moreover, a number of questions about the support from the head nurse and other colleagues were included in the questionnaire on a five-point Likert scale.

The second part of the questionnaire was based on Corley’s Moral Distress Scale-Revised (MDS-R), which was revised by Harmic in 2010. This section consisted of 21 items measuring the frequency and intensity of moral distress based on a four-point Likert scale. Frequency of moral distress ranged from ‘never’ (zero) to ‘everyday’ (four), and intensity ranged from ‘never’ (zero) to ‘very high’ (four). Total score of moral distress in each item was obtained through multiplying the intensity score by the frequency score, and the result ranged between 0-16. Total moral distress scores for intensity, frequency, and level of moral distress will be obtained from the total scores of questionnaire items (N=21) in all the three sections.

Scores of frequency and intensity of moral distress were derived from the total scale and classified into four categories of low (0-1), moderate (1.01-2), high (2.01-3) and very high (3.01-4). In addition, level of moral distress was classified into four categories of low (0-4), moderate (4.01-8), high (8.01-12) and very high (12.01-16) (9).

Content validity of the study was determined based on the findings of previous studies (14). Moreover, the questionnaire used in the present study was approved by 10 faculty members of the School of Nursing and Midwifery at Shahid Beheshti University of Medical Sciences, and considering a score of 85% for the content validity, all questionnaire items met the minimum
Moral distress and the contributing factors among nurses
requirements of validity (14).
To calculate reliability, the questionnaires were distributed among 30 nurses engaged in different wards and units of the hospitals affiliated to Shahroud University of Medical Sciences who met the inclusion criteria. Using the Cronbach's alpha, reliability coefficient of the questionnaire was estimated at 0.92.
The study protocol was approved by the Vice-Chancellor of Research at Shahroud University of Medical Sciences, and data collection was performed by the researchers at Imam Hussein and Fatemieh hospitals. Data were gathered during different working shifts, and the eligible subjects were assured of confidentiality terms before completing the questionnaires. If the subjects were busy, they were asked to complete the questionnaires and return them to the researchers within two days. In this study, 82% of the questionnaires were completed in full.
Data analysis was performed using descriptive and inferential statistics, such as independent T-test, Pearson’s correlation coefficient and one-way ANOVA, and P<0.05 was considered as statistically significant.

### Results

In this study, 106 subjects (86.88%) were female and 16 (13.11%) were male, with the age range of 23-52 years (mean age: 32 years, standard deviation: 4.85). In addition, 54 subjects (44.26%) were within the age range of 31-40 years, and all the subjects had a bachelor's degree in nursing (Table 1).

According to the findings of this study, means of frequency and intensity of the clinical situations causing moral distress in the nurses were 2.41±1.02 and 2.63±0.86 out of 4, respectively. Therefore, it could be concluded that the frequency and intensity of moral distress were relatively high in the subjects. Additionally, mean score of moral distress was estimated at 6.78±2.76 out of 16.

Nurses engaged in ICUs and surgical wards experienced the highest and lowest levels of moral distress, respectively (mean: 3.29±1.49 and 1.81±0.66, respectively). Moreover, the highest and lowest frequency of moral distress were observed in the staff of internal medicine wards (mean: 1.81±0.66, respectively). In addition, 54 subjects (44.26%) were within the age range of 31-40 years, and all the subjects had a bachelor's degree in nursing (Table 1).

Regarding the professional and career-based

### Table 1. Moral Distress and Demographic and Professional Factors of Nurses

<table>
<thead>
<tr>
<th>Demographic/Professional Factors</th>
<th>N (%)</th>
<th>Frequency</th>
<th>Intensity</th>
<th>Means±SD</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward/Unit</td>
<td></td>
<td>Low N (%)</td>
<td>Moderate N (%)</td>
<td>High N (%)</td>
<td></td>
</tr>
<tr>
<td>ICU</td>
<td>38 (31.14)</td>
<td>2 (5.26)</td>
<td>16 (42.10)</td>
<td>20 (52.63)</td>
<td>9.93±1.62</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>31 (31)</td>
<td>4 (12.90)</td>
<td>18 (58.06)</td>
<td>9 (29.03)</td>
<td>6.90±0.76</td>
</tr>
<tr>
<td>Surgical</td>
<td>28 (29.25)</td>
<td>17 (60.71)</td>
<td>7 (25)</td>
<td>4 (14.28)</td>
<td>2.22±1.10</td>
</tr>
<tr>
<td>Emergency</td>
<td>25 (20.49)</td>
<td>13 (52)</td>
<td>11 (44)</td>
<td>1 (4)</td>
<td>3.86±0.31</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16 (13.11)</td>
<td>2 (12.50)</td>
<td>75 (12)</td>
<td>2 (12.50)</td>
<td>5.21±0.02</td>
</tr>
<tr>
<td>Female</td>
<td>1 0 (86.88)</td>
<td>34 (32.07)</td>
<td>40 (37.73)</td>
<td>32 (30.18)</td>
<td>6.63±1.78</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>43 (35.24)</td>
<td>18 (41.86)</td>
<td>16 (37.20)</td>
<td>9 (20.93)</td>
<td>4.42±1.54</td>
</tr>
<tr>
<td>31-40</td>
<td>54 (44.26)</td>
<td>14 (25.92)</td>
<td>33 (61.11)</td>
<td>7 (12.96)</td>
<td>5.96±0.96</td>
</tr>
<tr>
<td>≥41</td>
<td>25 (20.49)</td>
<td>4 (16)</td>
<td>3 (12)</td>
<td>18 (72)</td>
<td>6.20±2.18</td>
</tr>
<tr>
<td>Clinical Experience (Year)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1-4</td>
<td>52 (44.62)</td>
<td>21 (40.38)</td>
<td>25 (48.07)</td>
<td>6 (11.53)</td>
<td>5.11±0.88</td>
</tr>
<tr>
<td>5-9</td>
<td>34 (27.86)</td>
<td>6 (17.64)</td>
<td>12 (35.28)</td>
<td>16 (47.05)</td>
<td>7.54±3.26</td>
</tr>
<tr>
<td>10-14</td>
<td>27 (22.13)</td>
<td>8 (29.62)</td>
<td>12 (44.44)</td>
<td>7 (25.92)</td>
<td>7.22±2.66</td>
</tr>
<tr>
<td>≥15</td>
<td>9 (7.37)</td>
<td>1 (11.1)</td>
<td>3 (33.33)</td>
<td>5 (55.55)</td>
<td>8.10±5.56</td>
</tr>
<tr>
<td>Feeling Supported by Head Nurses</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Unsupported</td>
<td>46 (37.70)</td>
<td>2 (34.4)</td>
<td>24 (52.17)</td>
<td>20 (43.47)</td>
<td>7.66±3.99</td>
</tr>
<tr>
<td>Partial</td>
<td>56 (45.90)</td>
<td>29 (51.78)</td>
<td>16 (28.57)</td>
<td>11 (19.64)</td>
<td>4.21±3.21</td>
</tr>
<tr>
<td>Permanent</td>
<td>20 (16.39)</td>
<td>5 (25)</td>
<td>12 (60)</td>
<td>3 (15)</td>
<td>2.86±2.00</td>
</tr>
</tbody>
</table>

* P<0.05
factors, the results of one-way ANOVA were indicative of a statistically significant difference between the level of moral distress in nurses employed in different workplaces (P>0.05). With respect to the support of the head nurse, the results were indicative of a significant correlation between this variable and the level of moral distress experienced by nurses. In other words, nurses who felt more supported by the head nurse tended to undergo lower levels of moral distress.

As for the demographic factors, only the age of the nurses was found to have a statistically significant correlation with the total level of moral distress, and older nurses were observed to experience higher levels of moral distress (Table 1).

Based on the viewpoint of the subjects in the current study, nurses engaged in ICUs experienced the highest level of moral distress while providing futile medical care for the patients, especially when the patient was mechanically attached to a ventilator, or if there was no hope for his survival. Furthermore, nurses engaged in internal medicine wards were believed to experience higher moral distress in case a patient had poor overall condition due to the lack of continuous, appropriate care.

According to the further results of this study, nurses working in emergency sections and surgical wards commonly experienced high levels of moral distress when they were assistants to physicians with insufficient authority and competence in their perspective. On the other hand, nurses were reported to undergo less moral distress in clinical environments where they complied with the requests of patients’ family members in providing the due care accordingly against their personal desire, or even because of the fear of patient complaints and legal consequences.

Discussion

The present study aimed to determine the level of moral distress and its contributing factors in nurses working in ICUs, internal medicine wards, surgical wards and emergency sections. According to the results, the overall rates of intensity and frequency of moral distress were relatively high among the studied subjects.

The highest and lowest levels of moral distress intensity were observed in nurses engaged in ICUs and surgical wards, respectively, while some studies have reported a moderate level of moral distress among the nursing staff of ICUs (15). However, the majority of studies in this regard have indicated high levels of moral distress among the nurses working in ICUs (11,16-18). As for the nurses engaged in surgical wards, some studies associated this workplace with the lowest level of moral distress experienced by the nurses (19, 20).

The findings of the current study were consistent with the results obtained by the aforementioned studies. In a study conducted in the North West of Iran, moral distress in nurses working in surgical wards was reported to be at a relatively high level (17); this difference could be due to the cultural diversities regarding the definition of morality in various parts of the country (7).

In the present study, moral distress among nurses working in emergency sections was reported to be at a moderate level, which was consistent with the findings of a study specifically focused on the examination of moral distress among emergency section nursing staff (21).

Furthermore, the intensity of moral distress had a significant correlation with the age of nurses; in other words, older nurses experienced higher levels of moral distress at different clinical settings. Several studies in this area have reported similar results (9, 14, 19, 22); however, some studies demonstrated an inverse correlation between age and the level of moral distress (12, 23).

It seems that the absence of professional ethics in nursing syllabi in Iran has resulted in low moral sensitivity and lack of proper understanding of clinical situations, which lead to the experience of moral distress by nursing graduates. Therefore, it is expected that younger nurses with insufficient clinical experience undergo low levels of moral distress. In this regard, age-progression and adequate work experience are likely to enhance moral sensitivity in nurses. Furthermore, adherence to the codes of ethics could lead to higher moral distress in nurses with more clinical
experience. Also, support from head nurses plays a pivotal role in the improvement of moral distress, and several studies have confirmed that nurses tend to seek support from their managers in order to implement moral decisions properly (24).

It is noteworthy that nursing managers are considered as the most significant supporters of the nursing staff in coping with moral distress (25). In the present study, nurses who enjoyed more support from their managers experienced less moral distress compared to others. In another study evaluating moral distress among oncology nurses, it was observed that these nurses also considered the support of the head nurse as one of the most important factors influencing moral distress (14).

In the current study, the frequency and intensity of moral distress were observed to be higher among the nurses engaged in ICUs, especially in providing care for patients attached to ventilators with low chances of survival. This finding was in line with the results obtained by other studies conducted on ICU nursing staff (12, 16). The results of the present study regarding moral distress in emergency sections were also consistent with the findings of another study performed on the evaluation of moral distress among the emergency nursing staff only (21).

According to the literature, improper nursing care is associated with higher levels of moral distress, compared to other clinical factors, in surgical and internal medicine wards (19, 20). Similarly, we observed higher levels of moral distress among the nurses engaged in internal medicine wards caused by the lack of continuous and appropriate nursing care, which resulted in the suffering of the patients.

**Conclusion**

Moral distress is a notable concept in the field of nursing, and the results of this study indicated that nurses are able to provide efficient patient care in working environments in which the beliefs and rights of patients are respected. In this context, any violation of the nursing ethics could affect the most scientific and effectual nursing care. If nurses can manage the clinical situations involving high levels of moral distress, they will be able to procure better patient care, and as a result, persist in working in different wards or sections.

Perhaps the first step to cope with moral distress is to explore clinical environments in which nurses undergo high levels of moral distress. In this regard, identification of the contributing factors associated with moral distress is of paramount importance. The findings of the current study could be beneficial for head nurses in adopting coherent policies in order to enhance the ability of the nursing staff to manage moral challenges and overcome moral distress at their workplace.

**Conflicts of interest**

There were no conflicts of interest in this study.

**Author’s contributions**

All authors participated in writing the scientific proposal, data collection and writing the manuscript. All authors read and approved the final manuscript.

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