

Predictors of Moral Distress in Nurses of Healthcare Training Centers of Medical Universities of the North West Provinces in Iran

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In general, the nursing profession is consistent with the high standards of behavior and ethical practice. Nurses work with ethical principles and measure their standards with what a good nurse does. One of the important phenomena in nursing ethics is moral distress. The purpose of this study was to determine the predictive factors of moral distress in nurses working in health care hospitals of North West of Iran. This was a cross-sectional study, in which 418 nurses working in health care centers in the hospitals of the North West of Iran in 2012 participated through multi-stage random sampling. To collect data, moral distress scale and factors influencing moral distress questionnaire with appropriate validity and reliability were used. In order to describe the results, descriptive statistic methods (mean, standard deviation, frequency, and percentage) were used. The Pearson correlation coefficient was used to investigate the relationship between moral distress and factors affecting it. Moreover, to investigate the relationship between basic variables and moral distress, multivariate linear regression analysis were used. Qualitative variables were entered into the analysis as markers. STATA was used for data analysis. All $P < 0.05$ were considered statistically significant. Among the socio-demographic variables of the nurses, the ratio of nurses to in-patient beds and type of working shifts had significant correlations with the level of moral distress ($B = 4.36$, $P < 0.05$). From the three areas of factors affecting moral distress, external factors had a significant relationship with moral distress ($P < 0.05$). Among the factors related to moral distress, lack of executive support and understanding one's disability had statistically significant relationships with moral distress ($P < 0.05$). Considering the relationship between external factors, especially administrative support method, with moral distress, nurse managers, as role models of the clinical nurses, can prioritize the existing problems in this area in the organization's operational programs. Using various methods of problem solving, and with the help of colleagues and senior managers, appropriate solutions can be provided with the available resources in order to improve the quality of care and resolve problems in the nursing community. Due to the role of resource shortage in creating moral distress in nurses, by recruiting and training nursing workforce, the increase in moral distress can be largely prevented. Short-term and medium term teaching and training can help in the nurses gaining the required qualifications and can reduce their perceived inability.

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The nursing profession is consistent with the high standards of behavior and ethical practice¹. The stated goals of the nursing profession are evidently moral and protect patients from injury and complications and maintain a mentally healing environment for patients and their families. Since most patients are vulnerable and need complete and timely care². Nurses evaluate their actions with ethical principles and their standards with what a good nurse does³. One of the important phenomena in nursing ethics is moral distress⁴. Nurses in clinical practice often experience moral distress when their acceptable standards are being compromised, or the nurses think that the treatment provided for the patients are not in the patients' best interests, or the nurses are faced with choosing between right and wrong¹. Moral distress is mental instability caused following the recognition of moral action, being responsible for performing the moral action, and not performing it due to barriers such as lack of time, little supervision, inhibitory authority of the physician, organizational policy or legal considerations, lack of trained personnel, and ineffective pain control protocols in patients⁵⁻⁸. Theoreticians have shown that individuals may be affected by a personal weakness (e.g., fear or lack of resolve) or situational constraint (e.g., hierarchical decision-making or lack of resources). In other words, the limitation may be internal or external⁹. Moral distress is a widespread problem in nursing, which may result in loss of moral integrity of the nurse, inability of nurses, dissatisfaction with the nursing profession, and loss of nursing workforce. Although the extent of this impact is not clear, the association between moral distress and these problems has increased concern among nursing administrators³. Moral distress affects both the professional and personal lives of nurses. In their personal life, it causes reduced tolerance and irritability, and in their professional life it leads to difficulty in concentrating, feelings of ineffectiveness, and reduces nurses' adaptability¹⁰. Conditions that cause moral distress are different for care providers, because people have different interpretations of their values and commitments. Although nursing researchers have identified common sources of moral distress, not every nurse who faces these conditions experiences moral distress¹¹. Corley

believes supporting life, even if it is not in the patient's best interest, ineffective communication between health care providers, patients, and families regarding ending life support, inappropriate use of health care resources, inadequate staffing, working with staff who do not have the appropriate training to provide the required health care services, inadequate pain relief for patients who express pain, and giving false hope to patients and families are the usual sources of moral distress in nurses¹². Sources of moral distress mentioned in other literature consisted of causing pain and suffering for the patient, treatment of patients like objects when necessary for the organization, effects of cost containment¹², workload, lack of competence of self and others, observing the harassment of others and moral compromise, and obligation to perform care that violates moral values and thus negative judgment about patients¹³. Many choices which deprive nurses of unpredictable and marginal positive results may increase the rate of moral distress¹⁴. Today, nurses experience greater moral distress due to increase in the complexity of the healthcare system, clinical errors, and shortage of nurses¹⁵. Borston has considered individual practitioners, site-specific systems, and broader external as the three main sources of moral distress. Nurses describe results of moral distress under the three headings of effects on self (in the form of anger toward self, self-doubt, loss of self-esteem, depression, and burnout), effect on others (including feelings of anger, bitterness, cynicism, and fear and despair), and effect on the system (including nurse engagement in avoidance behavior, occupation change, leaving and occupation)⁹. In another study, nurses' psychological responses, as internal factor and work environment as external factors were introduced. In addition, moral distress has been compared with moral comfort¹². "Clinical situation" factors, "patient care", also "nurse" cause moral distress. Clinical situation factors consist of inappropriate managing methods and unspecified nursing responsibility during patient care. These factors may result in nurses feeling powerless in acting in certain circumstances and non-supportive attitude of nursing managers. Patient care factors include decisions made for the patient from which the patient does not benefit. Factors related to

nurses may also be related to nurse's previous experience of moral distress, nurse's sensitivity on moral dimensions of patient care, and the role of nurses in patient care¹⁶. Eizenberg *et al.* have stated that the 3 factors of work-related issues among employees, issues caused due to lack of resources, and issue due to time pressure represent moral distress¹⁷. Pauly *et al.* have reported that in addition to patients and nursing managers, peers, physicians, and hospital management were also predictive factors of moral distress in nurses¹⁸.

Time pressure, the opportunity to consult with colleagues, and leadership style are associated with the initiating factors of moral distress¹⁹. Another factor influencing moral distress is the awareness of organizational support and deciding to change the situation. It is evident that increase in degree of perceived organizational support causes a decrease in the decision to change the situation, but the extent of this association is unclear²⁰. It appears that there is no association between shortages of nursing personnel, overtime work, and lack of appropriate support for the nurses. Nevertheless, some studies have shown that these factors can induce distress in nurses and are a reason for the nurses' displacements²¹. Based on Alkrisat's model, it was found that workplace stress is the most important factor of moral distress, and coping mechanisms modify the effects of unconscious stress. People who are in stressful environments and have unconscious stress, use coping mechanisms more and modify moral distress, but the amount of coping mechanisms used after moral distress is not clear²². Fogel has shown that in addition to the ethical climate of a hospital, demographic variables, such as gender, ethical training, and work experience have a potentially significant and predictive relationship with moral distress²³. However, many other studies show that no relationship exists between demographic characteristics, such as age, gender, education, and work experience and moral distress^{6,24}. Elpern *et al.* have reported that, except for work experience in nursing, all demographic factors have positive relationships with moral distress level²⁵. Given the wide range of stressors in the nursing profession, a study to investigate the factors affecting moral distress in nursing is essential²⁶. Most researches on moral distress are descriptive, and there is still limited knowledge

about the factors affecting moral distress¹⁹. Moreover, little research has been done on the impact of occupational factors on causing morally distressing situations. Higher understanding of moral distress and its predictive factors in nurses can help nurse managers identify the factors, and provide strategies for reducing the impact of such factors and its harmful effects. Furthermore, it will play an important role in empowering nurses in dealing with these situations. Given the importance of this issue, its impact on the quality of nursing care, restrictions in the provision of health services and treatments, and concerns regarding declining in the quality of patient care, conducting studies on predictors of moral distress from the perspective of nurses, who are direct determining factors in the recovery process, is essential¹⁹. More attention must be paid to moral distress by nursing managers and employers not only in the US but also in other countries, because it leads to nurses leaving their job²⁷.

According to the existing studies and the knowledge gap in this area, it is necessary to investigate this issue further. This study was conducted to identify the individual and professional predictors of moral distress in nurses working in hospitals in the North West of Iran.

METHODS

This was a cross-sectional study with descriptive analytical approach, where predictors of moral distress among nurses working in hospitals in the North West of Iran in 2012 were examined. This study was approved by the Regional Ethics Committee and Research Council of Tabriz University of Medical Sciences, Iran. After obtaining permits and official letters from the research deputy of Tabriz University of Medical Sciences, and by referring to the treatment deputy of the Universities of Medical Sciences of the provincial centers of Tabriz, Ardebil, and Zanjan, and through informing and coordination with managers, directors of nursing services, and supervisors of training centers of Tabriz, Ardebil, and Zanjan in different shifts (morning, afternoon, and night) the study was performed. The researchers introduced themselves, and provided the necessary explanations about the research. They emphasized the confidentiality of the

information and obtained consent from the participants. Then, the questionnaires were distributed among nurses with the inclusion criteria. They reminded the subjects to complete the questionnaire during their shifts and while they had an opportunity. At the end of the shifts, the questionnaires were collected by researchers.

The sample size based on the study by Gheraghi and Rabiei, 95% confidence level 95%, and 10% dropout rate, was estimated to be 450 cases²⁸. Multi-stage random sampling method was used. The first stage consisted of the cluster sampling of 3 North West provinces (East Azerbaijan, Ardabil, and Zanjan). The second stage consisted of selecting the hospitals of the provincial centers (10 hospitals in Tabriz, 2 in Ardebil, and 3 in Zanjan), third stage of selecting different wards (critical, psychiatry, internal, surgical, and emergency), and the fourth stage of selecting nurses according to the proportion of nurses in the mentioned wards and based on random proportion. Subjects were selected based on the inclusion criteria, which included having a bachelor degree or higher in nursing, employment in critical, internal, surgical, psychiatric, and emergency wards, and having at least 6 months work experience in the relevant ward.

A two-part questionnaire was used to collect data. The first part consists of 14 questions on socio-demographic and factors affecting moral distress. Socio-demographic information included age, gender, and marital status, type of ward, number of inpatient beds, education, experience, and shifts. Factors influencing moral distress included external factors (institutional constraints, institutional priorities, lack of administrative support, and clinical competence of doctors and nurses), internal factors (understanding their inability, defending patients' rights, lack of knowledge, and power imbalance), and clinical situation factors (ineffectiveness of continuing the treatment, a stable work environment, complying with the principle of being loyal to colleagues). This part was measured based on a 4-point Likert scale, number 1 represented the lowest effective factor on moral distress, and number 4 represented the most effective factor on moral distress. Part two included the standardized moral distress scale (MDS). This questionnaire has been extracted from the Corley standardized questionnaire consisting

of 32 questions and its validity and reliability have been confirmed by Vaziri in Iran^{5, 29, 30}. This questionnaire consisted of 30 questions in 3 categories of disregard for the patient (16 questions), decision-making power (8 questions), and professional performance competence (six questions). It was measured based on a 7-point Likert scale, number 1 represented the lowest moral distress, and number 7 represented the highest moral distress³¹. As a result, the scores of the intensity of moral distress ranged between 30 and 210. Moral distress levels of 1–3 (scores of 30–90) were considered as mild moral distress, levels of 4–5 (scores of 91–150) were considered as average moral distress, and levels of 6–7 (scores of 151–210) as severe moral distress. Validity of MDS in previous studies in Iran was assessed using content validity, reliability coefficient was estimated by test-retest, and Cronbach's alpha was 0.93^{29, 30}. However, for the validity of the questionnaire in the present study, the feedback of 12 professors of nursing and midwifery, community health, ethics, psychology, and medicine of Tabriz University of Medical Sciences were used. The reliability of internal consistency of the instrument as a preliminary study was examined with a total of 30 nurses of the study population. Given that Cronbach's alpha was 0.94, the reliability of internal consistency of the instrument was confirmed.

Data were analyzed using STATA software version 10 (STATA Corp., College Station, Texas 77845, USA), quantitative variables were summarized with mean [standard deviation (SD)] and qualitative variables with frequency (percentage), and to investigate the relationship between moral distress variables and underlying factors Pearson correlation test was used. To investigate the relationship between the background variables and moral distress, univariate analysis and multivariate linear regression modeling were used. In univariate analysis, the association of each variable was examined individually with the moral distress variable. In the multivariate analysis, the variables that were significantly associated in the univariate analysis (or were the potential confounding variables) were simultaneously entered and their relationship with moral distress was evaluated. Qualitative variables were entered into the analysis

as indicators. In addition, the effect of the sampling design with applying cities and ward variables was included in the analysis. P values of < 0.05 were considered to be statistically significant.

RESULTS

A total of 450 nurses participated in this study. Among them, 32 (7.1%) were excluded from the study due to returning incomplete questionnaires; therefore, 418 people were included in the analysis. Mean age and SD of the study

subjects was 32.77 ± 6.39 . Their age range was 22–52 years. Mean and SD of working experiences in the study subjects was 9.32 ± 6.75 years (Table 1).

Among the sociodemographic factors, the province in which they worked (Ardebil with $P < 0.001$), the ward they worked in (surgical ward with $P < 0.05$), education (masters and higher with $P < 0.05$), employment status (being on contract with $P < 0.05$), the ratio of nurses to beds ($P < 0.05$), and type of shifts (rotating with $P < 0.05$) had a significant relationship with moral distress in nurses in order of predicting power of moral distress in nurses (Table 2).

Table 1. Frequency and percent of socio-demographic characteristics of nurses

Demographic characteristics		Frequency	Percent
Province	Tabriz	281	67.2
	Ardebil	60	14.4
	Zanjan	77	18.4
Age(years)	Less than 40	347	82.9
	40 or more	71	17.1
Work experience	Less than 11	274	65.5
	Form 11-20	114	27.3
	21 or more	30	7.2
Ward	Special	63	15.1
	Internal	34	8.1
	Mental	100	23.9
	Surgery	68	16.3
	Emergency	153	36.6
Gender	Female	361	86.4
	Male	57	13.6
Marital status	Married	289	69.1
	Single	129	30.9
Education	Bachelor	390	93.3
	Masters and higher	28	6.7
Occupation	Employed	326	78
	Contract	55	13.2
	Project	37	8.9
Work title	Managerial	49	11.7
	Non-managerial	369	88.3
Night shift in a week	3 shift or less	362	86.6
	4shift or more	56	13.4
Morning shifts	1shift	310	74.3
	2shift or more	107	25.7
Second job	Yes	25	6
	No	392	93.8
Working shifts	Fixed morning	71	17
	Fixed afternoon	7	1.7
	Fixed night	0	0
	Rotating shifts	340	81.3
Received income	Low	141	33.7
	Moderate	229	54.8
	good and Excellent	48	11.5

Table 2. Socio-demographic factors associated with the level of moral distress

Variable		Univariate (un-adjusted)			Multivariate (adjusted)		
		B(SE)	Beta	P	B(SE)	Beta	P
Province	Tabriz	Reference	-	-	-	-	-
	Ardebil	5.08	-0.21	< 0.001*	5.21	-0.2	< 0.001*
	Zanjan	4.45	0.01	0.76	4.54	-0.01	0.79
Ward	Special	Reference	-	-	-	-	-
	Internal	4.76	0.01	0.82	4.79	0.02	0.64
	Mental	6.75	-0.08	0.13	6.64	-0.07	0.18
	Surgery	4.37	-0.12	0.02*	4.63	-0.05	0.33
	Emergency	4.53	0	0.87	4.35	0.01	0.71
Education	Bachelor	Reference	-	-	-	-	-
	Masters and higher	6.2	0.09	0.03*	6.1	0.08	0.07
Occupation	Employed	Reference	-	-	-	-	-
	Contract	4.74	0.08	0.08	-	-	-
	Project	5.8	-0.09	0.05*	-	-	-
Working shifts	Ratio if nurses to beds	1.12	-0.07	0.01*	1.12	-0.06	0.03*
	Fixed morning	Reference	-	-	-	-	-
	Fixed afternoon	11.97	0.08	0.84	14.1	0	0.86
	Fixed night	-	-	-	-	-	-
	Rotating shifts	4.36	0.13	0.01*	4.54	0.11	0.03*

*Independent predictors

Table 3. Socio-demographic factors associated with " being ignorant to the patient "of moral distress

Variable		Univariate (un-adjusted)			Multivariate (adjusted)		
		B(SE)	Beta	P	B(SE)	Beta	P
Province	Tabriz	Reference	-	-	-	-	-
	Ardebil	2.53	-9.73	>*0.001	-8.4	2.61	*0.001
	Zanjan	2.3	0.78	0.34	-0.64	2.33	0.78
Ward	Age	0.01	-0.04	*0.01	-	-	-
	Work experience	0.01	-0.03	*0.02	-	-	-
	Special	Reference	-	-	-	-	-
	Internal	0.36	0.45	0.2	2.71	1.53	0.57
	Mental	0.45	-0.39	0.39	3.64	-9.09	*0.01
Marital status	Surgery	0.31	-0.44	0.15	2.38	-3.93	0.1
	Emergency	0.35	0.25	0.47	2.6	0.92	0.72
	Married	Reference	-	-	-	-	-
Education	Single	0.25	0.49	*0.05	-	-	-
	Bachelor	Reference	-	-	-	-	-
Occupation	Masters and higher	0.47	-0.24	0.6	3.58	10.63	*0.003
	Employed	Reference	-	-	-	-	-
	Contract	0.34	1.13	>*0.001	2.67	2.55	0.34
Work title	Project	0.41	-0.73	0.07	3.2	-5.78	0.07
	Managerial	Reference	-	-	-	-	-
	Non-managerial	0.36	0.58	0.11	3.08	7.36	*0.01
Working shifts	Night shift in a week	0.11	0.39	>*0.001	1.05	-0.25	0.81
	Morning shifts	0.22	0.52	*0.02	1.72	0.42	0.4
	Fixed morning	Reference	-	-	-	-	-
	Fixed afternoon	0.93	4.41	>*0.001	7.32	-1.39	0.84
	Fixed night	-	-	-	-	-	-
	Rotating shifts	0.3	1.04	>*0.001	3.15	2.34	0.45

*Independent predictors

Among the socio-demographic factors, the province in which they worked (Ardebil), age, work experience, the ward they worked in (Mental ward), marital status, education (Masters and higher), employment status (Contract), work title (Non-managerial), night shift in a week, morning shifts, and type of shifts had the most significant relationship with nurses' disregard for the patients' needs, respectively (Table 3). Furthermore, the province in which they worked and their gender had the most significant relationship with decision-making power, respectively (Table 4). Finally, the province in which they worked, gender, night shift in a week, and type of shifts had the most significant relationship with dimension of professional performance competence of moral distress in nurses, respectively (Table 5).

Considering the nurses view, in terms of intensity of effect of factors on moral distress, organizational policies and priorities, lack of clinical competence of doctors and nurses, lack of administrative support, and institutional limitations had the highest frequency among external factors, respectively. Moreover, defending patients' rights, imbalance of power, lack of knowledge, and understanding one's disability had the highest frequency among internal factors, respectively. In addition, among situational factors, the factors of complying with the principle of being loyal to the colleagues, ineffectiveness of continuing the treatment, and maintaining a stable work environment had the highest frequency, respectively. Defending patients' rights had the highest frequency among all factors.

Table 4. Socio-demographic factors associated with "patient's decision making power "of moral distress

Variable	Univariate (un-adjusted)			Multivariate (adjusted)		
	B(SE)	Beta	P	B(SE)	Beta	P
Province	Tabriz	Reference	-	-	-	-
	Ardebil	1.54	-6.07	>*0.001	1.64	-5.4
	Zanjan	1.4	-0.1	0.94	1.47	-0.44
Gender	Female	Reference	-	-	-	-
	Male	1.56	4.02	*0.01	1.71	4.19

Table 5. Socio-demographic factors associated with "professional-performance competence "of moral distress

Variable	Univariate (un-adjusted)			Multivariate (adjusted)		
	B(SE)	Beta	P	B(SE)	Beta	P
Province	Tabriz	Reference	-	-	-	-
	Ardebil	1.16	-4.31	>*0.001	1.22	-3.9
	Zanjan	1.05	0.77	0.46	1.09	0.1
Ward	Special	Reference	-	-	-	-
	Internal	1.24	-0.45	0.71	2.27	-0.81
	Mental	1.59	-0.39	0.8	1.71	-2.06
	Surgery	1.07	-2.03	*0.05	1.12	-1.48
	Emergency	1.21	-0.74	0.5	1.22	-1.22
Gender	Female	Reference	-	-	-	-
	Male	1.18	2.47	*0.03	1.28	2.82
Working shifts	Night shift in a week	0.39	-0.14	0.7	0.49	-1.08
	Fixed morning	Reference	-	-	-	-
	Fixed afternoon	3.28	-0.9	0.78	3.44	-0.85
	Fixed night	-	-	-	-	-
	Rotating shifts	1.08	2.41	*0.02	1.48	3.6

*Independent predictors

Table 6. The relationship between factors affecting and moral distress for prediction

		Unstandardized coefficients				Unstandardized Coefficients	
		B	Standard error	Beta	T		
External factors affecting moral distress	Institutional constraints	-5.571	3.981	-0.076	-1.399	0.162	
	Lack of executive support	16.326	3.071	0.315	5.317	< 0.001	
	Lack of clinical competence of doctors and nurse	3.429	2.403	0.077	1.427	0.154	
	Policies and priorities of the organization	-2.524	3.107	-0.044	-0.812	0.417	
Internal factors affecting moral distress	Understanding one's inability	11.914	4.301	0.141	2.770	0.006	
	Defending patient's right	1.694	1.787	0.047	0.948	0.344	
	Lack of knowledge	-2.582	1.988	-0.066	-1.299	0.195	
	Power imbalance	3.827	2.618	0.073	1.461	0.145	
Situational factors of moral distress	Ineffectiveness of continuing treatment	1.946	1.567	0.061	1.241	0.215	
	Maintaining a stable working environment	0.197	1.984	0.005	0.099	0.921	
	Following the principle of being loyal to colleagues	3.295	1.928	0.084	1.709	0.088	

Findings showed that among three areas of factors affecting moral distress, external factors were significantly associated with moral distress. In addition, the external, situational, and internal factors in the order of priority were effective on moral distress, and have predictive power. Among external factors affecting moral distress, lack of administrative support, and among the internal factors, understanding one's inability had a significant relationship with moral distress ($P < 0.05$).

According to the standardized regression coefficients (beta), among external factors, lack of administrative support, is the strongest predictor of moral distress ($\text{beta} = 0.31$, $P < 0.001$). Among the internal factors, understanding one's inability is the strongest predictor of moral distress ($\text{beta} = 0.14$, $P < 0.05$). Interestingly, among the clinical situation factors, principle of loyalty to colleagues does not have a significant relationship with moral distress and is a weaker predictor than the previously mentioned factors affecting moral distress ($\text{beta} = 0.08$; Table 6).

DISCUSSION

In this study, there was a relationship between employment status, types of shifts, and the level of moral distress. This is not consistent with the study by Veer *et al.* that showed nurses who worked 30–40 hours a week experienced less distress compared to their colleagues who worked fewer hours. This difference might be due to the different study environments. Since Veer *et al.*, in their study, in addition to the nurses working in hospitals also included nurses who worked at elderly centers, home care, and also nursing homes¹⁹. Considering that, in the present study, the ratio of nurses to beds is associated with the level of moral distress, which is in agreement with the results of the study by Maysa *et al.*,³² it can be said that the shortage of nurses is a key element in the development of moral distress³) Some health care providers believe that due to the high workload and that they need to focus their minds on the direct care of patients, they cannot provide the care that they believe is the patient's right, and in situations where there are more patients than beds they will experience distress³). This issue shows the need for paying more attention to

providing more nursing workforce in order to reduce moral distress.

The findings of this study showed that among the factors affecting moral distress, external factors (institutional constraints, lack of administrative support, lack of clinical competence of doctors and nurses, and policies and priorities of the institution) have a significant relationship with moral distress. This is consistent with the study by Veer *et al.*¹⁹. They reported, in their study, the causes of conditions that lead to the increase in moral distress as law (including changes in the needs assessment policies, and regulations governing the financing of care), health care policies (including health care policies such as demands based on the care provided, elevated levels of management and stability, cutting health care, focusing on the market, and competition), content and nature of the work (including reduced quality of nursing care, inadequate nursing staff, and job strain), and social demands (including patient empowerment, increased health care needs, and development of medical sciences).

Among the internal factors affecting moral distress, managing patients' rights and the imbalance of power had high frequency in causing moral distress. This was consistent with the study by Wilkinson which identified the causes of moral distress as patient's treatment as a tool in order to meet organizational needs, or discontinuation of therapy without the participation of nurses in decision making, poor management of pain, ignoring the rights of patients in terms of acceptance of refusal of treatment, or not informing the patient and their family about the treatment options³⁵.

In the present study, among the external factors administrative support had a significant relationship with moral distress. This finding was consistent with the study by Ameri *et al.* in which among the factors associated with moral distress from the nurses' perspective, the organizational factors had the highest rate with a mean of 3.91 from 5. In this regard, support from administrators, nurses professional independency, and having a clear job description had the highest means of 6.69, 4.66, and 4.60 from 5, respectively³⁶. In the study of Ebrahimi *et al.*, there was a close relation between the amount of stress, performance of the nurses, organizational constraints, and management

systems³⁷. Corley, in his theory, focused on institutional constraints and stated that moral distress is experienced when there is an insufficient number of staff, or the organizational policies make it difficult or even impossible to provide the patients' needs or their families¹².

The present study was consistent with the study of Hamric that showed an internal barrier with the inability to identify ethical issues or lack of adequate replacement, predisposes nurses to moral distress^{38, 39}. Furthermore, this study was consistent with the study by Rager Zuzelo that in situations where the nurses know what to do for the patient, but do not have the ability to convince the doctor, and in such situations that the nurses want to do the best for the patient, but cannot and feel they have been neglected, as a result of powerlessness they experience moral distress⁴⁰.

Since this study had a large population, was conducted in three North West provinces of Iran (East Azerbaijan, Ardabil, and Zanjan) and in different wards (psychiatric, intensive care unit, internal, emergency, and surgery wards) with a sample volume of 450, it can probably have high generalizability to North West provinces of Iran. The results of this study make a valuable contribution to the understanding of moral distress among in nurses of healthcare training centers of Medical Universities of the North West provinces in Iran.

Despite the assurance of anonymity of all participants, potential socially desirable responses may have affected the results because of the nature of this study. A self-report questionnaire was used to collect the data, which probably can be effective in reporting high moral distress. Therefore, it is recommended for future studies that questions as scenarios be used so the nurse does not know about the scoring scale. This study was performed on nurses working in 5 wards of the hospital; thus, its results cannot be generalized to other employees and other treatment organizations.

CONCLUSION

The present study showed that moral distress is a common attitude in nurses. Therefore, it is suggested that ethics and ethical decision-making be considered as an integral part of all

nursing education programs. Moreover, the investigation of the circumstances in nurses' working environment which cause moral distress seems reasonable.

In this study, among the socio-demographic variables of the nurses, the province which they work in, their ward, education, employment status, the ratio of nurses to beds, and type of shifts had a significant relationship with the level of moral distress. Among the factors associated with moral distress, lack of administrative support and understanding one's inability had a significant relation with moral distress. In studying nurses' perspective, external factors, especially administrative support method, had high scores in connection with moral distress. Therefore interventions on moral distress should be performed on both individual and organizational levels.

Nurse managers, as role models for clinical nurses and other members of the treatment team, can prioritize the problems in this area in the organization's operational programs. They can also deal with these issues by using different problem solving methods. Along with other people and senior executives, they can find appropriate solutions with available resources in order to improve the quality of care and resolve issues of the nursing community. Staffing shortages cause moral distress; therefore, by hiring and training the workforce the increase in moral distress can be highly prevented. Developing ethics committees in health care training centers and nurse's offices can help nurses in dealing with ethical issues and they can benefit from the guidelines of the committees.

Understanding one's inability is among the important factors in moral distress. Scientific and practical trainings, in short and medium term periods, can benefit them by qualifying them for a job in the healthcare setting. Holding professional moral dilemma courses can be useful. Especially, having discussion sessions about complex ethical issues, which can lead to right moral decisions and to preventing the occurrence of moral distress, is important. Job characteristics that lead to moral distress, due to being associated with job satisfaction and relocation of nurses, are important and should be considered by managers. In order to reduce moral distress, interventions should be

considered as organizational goals. The way in which a system is supported can increase or reduce moral distress(19). Recognizing moral distress and ethical dilemmas environment that is conducive to distress, preventative measure can be done(41). Reducing moral distress by helping staff deal effectively with ethical dilemmas should be the goal of health care organizations.

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