Moral Distress and the Nursing Care Quality: A Correlational Study in Teaching Hospitals

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Abstract

Background and Objectives: Achieving high quality healthcare services and patients' satisfaction with the healthcare services represents an important issue in healthcare delivery systems. Moral distress is one of the effective factors on this issue. Regarding the significance of the nursing care quality, it is necessary to investigate association between moral distress and the nursing care quality to reduce moral distress.

Methods: The participants of this descriptive-correlational study were 545 nurses of the ICUs, CCUs, and psychiatric departments selected by census. Data collection was conducted by Moral Distress Scale and Quality Patient Care Scale that were distributed among the participants and collected within eleven months. Data analysis was conducted by descriptive statistics and Pearson correlation coefficient in SPSS 13.

Results: Mean scores for moral distress and nursing care quality were 141.89±29.6 (moderate) and 195.97±28.05 (relatively desirable), respectively. According to Pearson correlation coefficient (0.058=α), the two variables were not correlated. Although moral distress was not significantly different between the nurses of the ICUs and CCUs and those of the psychiatric department (P=0.056), t-test indicated that nursing care quality was more desirable in the psychiatric department (P=0.016).

Conclusion: The levels of moral distress were moderate among the nurses and care quality was higher in the psychiatric department. It is recommended to implement educational programs such as prevention of exposure to stressful conditions, identify associated factors, and promote nurses' knowledge about moral distress and its consequences in order to manage tension. To promote care quality in ICUs, survey of nurses' perspectives is necessary to remove current barriers according to their perspectives and priority should be given to this issue in managers' operational agendas.

Keywords: Care Quality, Moral Distress, Nurse, Nursing Care.

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Introduction

Nursing care quality is concerned with activities that are implemented to realize predetermined purposes (1). Nursing ethics is one of the important issues of nursing care. Nursing ethics refers to all behaviors that are manifested during nursing profession as individual characteristics in relation to patients, their relatives and caregivers, community, government, work environment, colleagues, etc. Moral distress is an important issue in nursing ethics (2). Achieving high quality healthcare services and patients' satisfaction with the healthcare services represents an important issue in healthcare delivery systems and this is one of the important responsibilities of health managers and professionals with increasing significance every day (3). Because nurses are responsible for delivering 24-h clinical care (4) and are held legally and morally accountable

for the quality of delivered services (5), their attitudes are essential to define nursing care quality. In addition, it is argued that an optimal and comprehensive level of care quality can never be achieved; therefore, constant assessment is essentially required to develop new solutions so that nursing care quality can be promoted (1).

Burhans argues that purposefulness is the most important characteristic of nursing care quality and quality promotion is realized by delivering the highest possible quality care (6). Besides that, the significance of clinical care is increasing due to the growing development of quality orientation in healthcare services (7). ICU nurses have to face environmental stressors, heavy workload, understaffing, and difficult caretaking conditions that affect the process of nursing care delivery and therefore care quality (8). Moral distress is an effective factor on nursing care quality as studies indicate that nurses' caretaking capacities decline if moral distress occurs (9,10). Different rates of moral distress have been reported such that some studies have reported high levels of moral distress among ICU nurses (11,12), while a study reported that the levels of moral distress were low among these nurses (13).

Elpern et al. study demonstrated that the incidenceof moral distress increased in the ICUs due to extensive need for taking moral decisions on caretaking and treatment of critically ill patients (14). As a result, it appears that the level of moral distress in nurses varies depending on the environment and governing regulationsand should be investigated in different wards; in addition, relationship between individual and occupational characteristicsand moral distress should be determined. Having knowledge about the causes of moral distress in nurses can help to develop preventive strategies and programs as well as to reduce this state (15). Moral distress affects adversely nurses' quality of working life including taking care of the patients (16).

Ebrahimi et al. study demonstrated that nurses in Iran suffer from moral distress-associated psychological stress (17). According to Khaki et al. study in Iran, from the patients'

perspectives, the regulations of professional ethics was observed moderately and nursing care quality was assessed to be desirable and relatively desirable. Khaki et al. recommended to increase appropriate patient-nurse relationship, pay attention to patients' physical, psychosocial, and relational needs, and codify systematic educational programs for nursing managers and instructors alongside in-service educational programs (7). In Pikanen et al. study in Finland, increasing social, security, and physical support of the patients in nursing care was emphasized by the patients (4). Besides that, Driscoll et al. review showed that revising healthcare, quality of hospital care, monitoring accidents and consequences, patient satisfaction, and disease outcomes are the key elements of nursing interventions from the patients' perspectives (8).

With regards to the significance of this issue and the intensification of worries of decline in care quality, it is essential to conduct studies on nursing care quality and associated factors. Moral distress that plays a key role in patient recovery is one of these factors. Moreover, it is necessary to study association of care quality domains with moral distress to provide evidence to promote psychological, physical, and relational domains of care quality, enhance nurses' decision-making capacity and status, and pay the greatest possible attention to patients at the bedside that can help to eliminate moral distress and develop medical procedures.

To the best of our knowledge, the outcomes of moral distress and their association with nursing care quality have not yet been studied in Iran. Moreover, we were further encouraged to conduct this study due to reportedly growing moral distress, and increased transition of patients, heavy workload, and invasive actions in ICUs that cause moral distress and disrupt taking care of patients as well as to offer care strategies and therapeutic relationships without invasive and pharmacological interventions that require certain skills to take care of patients and cause moral distress. This study was conducted to investigate association between moral distress and nursing care quality in the ICUs, CCUs, and psychiatric

departments of teaching hospitals affiliated with the Tabriz University of Medical Sciences.

Methods

This descriptive-correlational study was conducted in CCUs, ICUs, dialysis unit, and psychiatric department. Data collection was conducted by a 3-section questionnaire consisting of sociodemographic questionnaire, Corley's Moral Distress Scale (MDS), and Quality Patient Care Scale (QUALPACS). The Corley's MDS, widely used to measure moral distress in nursing, was first used in 1995 (18). Vaziri et al. calculated the validity and reliability (Cronbach's alpha coefficient: 0.086) of the Corley's MDS and then used it to collect data (19). In other studies, the Corley's MDS was validated by content validity and its reliability was derived 0.93 by test-retest and Cronbach's alpha coefficient (11,20). In the current study, this scale was validated again using the comments of 12 professors of medical sciences, nursing, midwifery, community health, ethics, and psychology in the Tabriz University of Medical Sciences, and reliability coefficient was derived 0.94 by internal consistency and the Cronbach's alpha coefficient.

The Corley's MDS consists of three domains namely disregard the patient (16 items), decision-making power (6 items), and professional competence (6 items) to measure the level of moral distress based on the triggering clinical situation using 7-point Likert scale (1-7).

Participants were asked to leave the items on situations with which they had not already had any experience unanswered. Minimum and maximum possible scores for the Corley's MDS are 30 and 210, respectively; scores 30-90, 91-150, and 151-210 representrespectively low, moderate, and high levels of moral distress. Nursing care quality was assessed by the QUALPACS. This scale has been repeatedly used in the USA since 1975 and occasionally used in England and Nigeria. The QUALPACS was translated into Persian and its validity and reliability were confirmed in 2005-2006 and 2010 in the Tabriz University

of Medical Sciences, Tabriz, Iran (1,21). The QUALPACS consists of 68 items and assesses nursing care quality in three domains: Psychosocial (32 items), physical (23 items), and relational (13 items). The QUALPACS items are rated by 4-point Likert scale (Never: 1, Sometimes: 2, Often: 3, and Always: 4). For each item, minimum and maximum possible scores are 1 and 4, respectively. For the whole scale, minimum and maximum possible scores are 68 and 272, respectively. Scores 68-136, 137-204, and 205-272 represent respectively undesirable, relatively desirable, and desirable nursing care quality.

Because we found no similar study, sample size was decided to be 602. Because the number of nurses was limited, we used census sampling conducted within eleven months (November 2013-September 2014). For certain reasons such as lack of returning the questionnaire (n: 23), not filling out the questionnaire completely (n: 12) because of lack of time and being busy, unfamiliarity with statistical principles and indifference to research, lack of using the findings in nursing, the managers' not volunteering to listen to the staff's worries, lack of implementing useful and continuous educational and promotion programs for the staff, personal reasons, and not meeting the inclusion criteria (n: 22), 57 nurses were excluded. The inclusion criteria were holding at least bachelor's degree, having worked in the department of interest for at least six months, and volunteering to participate in the study. First, the Ethics Committee approved the study protocol, and then the Research and Technology Deputy provided letter of approval to conduct the study, the questionnaires were prepared for administration, the target hospitals were determined, and then necessary arrangements were made with the chief executive officers of the hospitals, nursing managers, and supervisors to distribute the questionnaires among the samples by referring to the hospitals in morning, afternoon, and night shift works. The questionnaires were collected three to seven days after distribution.

Data analysis was conducted by descriptive statistics (frequency, percentage, and mean and

standard deviation) in SPSS 13 to determine the levels of moral distress and nursing care quality. To study the role of distress in nursing care quality, contingency table (Pearson correlation coefficient) was used. Association between moral distress and nursing care quality was investigated by Pearson correlation coefficient, difference between moral distress and nursing care quality in two wards investigated by t-test, and the equality of mean values and variances investigated by Levene's test.

This study was derived from a research project approved at the Ethics Committee of the Tabriz University of Medical Sciences (approval no. 12331/4/5). The researcher introduced himself to the hospitals authorities, observed research ethics including keeping information private and anonymous, not forcing samples to participate in the study, providing introductory information about the history and definitions of moral distress as well as the research purpose, presenting the research findings to receive the participants' recommendations to improve care quality, taking into account current scientific gap to fuel further research, and spending cost and time to have the participants give as accurate and honest responses as possible to the items.

Result

In the studied departments of the ten hospitals, 86.6% of the nurses were female and 56% married. The majority of the participants held bachelor's degree and were working in Imam Reza and Shahid Madani Hospitals (Table 1).

Mean score for the participants' moral distress was 141.89±29.6 that represents a moderate level of moral distress. Out of the participants, 52.8% reported to experience moderate levelsof moral distress and 41.3% reported to experience high levels. According to the Corley's MDS, the participants experienced the highest level of moral distress in delivering care under unsafe conditions due to inadequate nursing staffing (item 4) and conditions in which unsatisfactory care was delivered to the patients for this reason (item 1). Mean score for nursing care quality was 195.97±28.05 that

was considered to be relatively desirable (37.1%) and desirable (61.2%) by 98% of the participants and undesirable by approximately 2% (Table 2).

Table 1. The sociodemographic characteristics of studied nurses

sociodemographic characteristics of studied nurses		Absolate & Relative Frequency	
		Frequency	Percent
Hospital	Shohada	28	5.1
	Alzahra	15	2.8
	Shahid Madani	150	27.5
	Children Cure & Health Hospital	47	8.6
	Alavi	9	1.6
	Imam Reza	160	29
	Taleghani	13	2.9
	Nikoukari	8	1.4
	Razi	90	16.5
	Sina	25	4.6
Ward	Special	455	83.5
	Psychiatric	90	16.5
Gender	Female	472	86.6
	Male	73	13.4
Marital Status	Single	239	43.9
	Married & etc	306	56.1
Education	Bachelor	511	93.8
	Master & Higher	34	6.2
Occupation	Employed	157	28/8
	Contract & Project	388	71.2

In the QUALPACS, the items "When the patient asks a question, I reply verbally and nonverbally", "I ask the patient his/her name before medication administration", and "I observe my personal hygiene" were the most frequently reported items of high quality.

Twenty three of the participants had low levels of moral distress and reported to deliver care services with desirable quality; therefore, the nurses' moral distress seemed to have no effect on the quality of care delivered by them. This assumption was tested by Pearson correlation coefficient, and moral distress and nursing care quality were not found to be correlated (r=-0.085, p=0.058).

The mean level of moral distress was 137.80±33.9 in the psychiatric departments and 142.75±28.6 in other studied departments that represent moderate levels (90-150). According to independent and paired t-test, there was no significant difference in mean score for moral distress between the two groups (p=0.175).

The mean quality of care was 189.27±30.6 in the psychiatric departments and 197.29±27.32

Table 2. Descriptive data on moral distress and nursing care quality

Level of Moral Distress	Level of Quality of Care							
	Undesirable		Relatively Desirable		Desirable		Total	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Low	0.18	1	1.46	8	4.22	23	5.86	32
Moderate	1.10	6	21.28	116	30.45	166	52.83	288
High	0.05	3	14.31	78	26.42	144	40.8	225
Total	1.83	10	37.06	202	61.10	333	100	545

in other studied departments that represent moderate levels of care quality (137-204). According to independent and paired t-test, there was no significant difference in mean score for care quality between the two groups (p=0.016), although mean score for care quality was higher in the psychiatric departments.

Discussion

The present study demonstrated that moral distress was not effective on the quality of healthcare services, and inadequate staffing and lack of delivering healthcare services the patients needed were reported to be the most important causes of moral distress. Nobahar reported that adequate and efficient human resources were effective on the nursing care quality (22). Mahmoodi et al. argued that nurses experienced physical and psychological exhaustion due to hard work and compressed shift works that prevented them from delivering care services with desirable quality (23). Besides that, delivering care with desirable quality is influenced by nurse to patient ratio, the nature of task, and organizational support (24). Kwak et al. pointed to decreased nurse to patient ratio as well (25). Inadequate nursing staffing causes nurses to deliver intensive care only (26). Decline in efficient workforce and nurses' migration abroad is a phenomenon with which Iran is faced (27). This phenomenon is an important reason for increased workload for the nurses and ultimately declined quality of care and lengthened hospital stay, repeated hospitalization, and increased costs for the patients.

In our study, the study setting can be one of the reasons for which these factors could not affect the quality of care, because in CCUs, ICUs, and psychiatric departments, caregivers or family members of the patients are not present and most patients in such wards are critically ill and have low levels of consciousness. Besides that, the number of nursing staff is higher in CCUs and ICUs than in other wards. Patients in psychiatric wards lack complete cognition of the therapeutic processes and are less likely to protest the nurses' potential dereliction and other problems, while the nurses of other wards deal with conscious patients and their caregivers, and are occasionally faced with people who are familiar with their rights and may protest to them.

The complexity and multidimensionality of care lead to different explanations. Nurses have been reported to seek to deliver quality care but managers cause their motivation to decline because they emphasize economic criteria and profitability (28,29). In our study, 98% of the nurses reported to deliver care with desirable quality, which is consistent with a number of studies (1,21,30).

Care quality in relational domain was reported acceptable in the current study, which is in agreement with Ebrahimi et al. study (21). In the psychiatric departments, the most important factor for gaining the patients' satisfaction was paying attention to patient-staff relationship, while Schroder et al. (30) and Hansson et al. (31) reported that the least importance was attributed, from the patients' perspectives, to the physical environment or daily routines in the ward. It seems that inadequate nursing staffing, heavy workload (5,17), giving priority to physical care, and time and environmental restrictions are some of the reasons for lack of skills and knowledge about delivery of mental health services (32). Therefore, staff may be indifferent to patients' emotional needs, and nurses are more likely to take scientific and practical aspects into account rather than nursing art, while they are

both legally and ethically held accountable for delivering high quality care (5). In this domain, "Observing personal hygiene" was the most frequently reported item of desirable quality, and "Ensuring patients that their secrets will be kept private" and "Listenting well to the patient's words" were reported actions to which greater attention was paid.

"Introducing referral organizations for financial assistance", "Predicting the patient's needs", and "Spending time to let the patient ask his/her questions" were the most frequently reported items conducted with undesirable quality, which is in line with Neishabory et al. study (33). In Rafii et al. study, the participants including nurses, patients, and nursing instructors reported to be under financial pressure, which revolved care quality (28). Zamanzadeh et al. reported "Establishing appropriate relationship between the nurses and other staff", "Ensuring the patients that their information will be kept private", "Spending time to let the patient ask his/her questions", and "Sharing feelings" to be more important items (1). According to Tazakori et al. study, strengthening and implementing current programs and providing standard educational environment can affect the quality of clinical education (34).

Managers, support organizations, and insurance companies are therefore recommended to provide nurses and patients with facilities to remove existing barriers and codify satisfactory agendas to have patients raise their questions through increasing nursing staff or decreasing the number of patients, and requiring healthcare staff, especially nurses, to pay attention to the patients' emotional needs and promote knowledge according a client-oriented approach such that it causes improvement of relationships.

Regarding the psychological domain of care quality, 53% of the participants reported care quality to be relatively desirable, which is consistent with Ebrahimi et al. study(21). But in Neishabory et al. study, 92.6% of the nurses reported desirable attitudes toward this domain. This inconsistency can be due to Ebrahimi et al.'s conducting study in northwest while the current study was conducted in the CCUs,

ICUs, and psychiatric departments of hospitals in the capital of a northwest province of Iran. Neishabory et al. study was conducted in the internal medicine, surgical, gynecology, and pediatric wards with a small sample size.

In our study, in the psychosocial domain, "Verbal and nonverbal responding to the patient's questions", "Refraining from getting angry and saying bad words" and "Responding according to the patient's understanding" were highly frequently reported items of desirable quality and "The patient's asking for visiting a cleric", "Introducing the new patient to other patients in the room", and "Familiarizing patients with similar conditions with each other" were highly frequently reported items of undesirable quality. In this domain, Zamanzadeh et al. reported that "Responding to the patient's questions based on their understanding" and "Refraining from saying bad words" were more frequently taken into account by the nurses, while "Introducing the patient to other patients" and "Having a cleric be present on the patient's bedside" were less frequently taken into consideration (1). Neishabory et al. findings on the psychosocial domain demonstrated that "Seeking to remove the patients' problems" and "Identifying the patients with the beds numbers", were much frequently taken into account by the nurses and "Introducing the new patient to other patients" and "Familiarizing patients with similar conditions with each other" were less frequently taken into consideration(34).

Therefore, given Iran's Islamic culture, the significance of religious practice and spiritual forces should be paid considerable attention, and "Familiarizing patients with similar conditions with each other" and "Having new patient talk with other patients in the room" cause enhancement of care quality, better recognition of nurse by patient, and patient's optimistic attitudes toward nurses.

Regarding the physical domain in the current study, 71.2% of the nurses and in Ebrahimi et al. study, 65.8% of the nurses reported the quality of care to be desirable(21). In this domain, "Asking the patient's name before medication administration", "Detecting the causes of pain and taking action to remove or

relieve it", and "Raising the bedside bar and explaining the reason for doing this" were reported to attract the nurses' considerable attention, and "Making the environment fragrant", "Satisfying the patient's primary needs", and "Satisfying the patient's daily hygiene needs" were less frequently taken into consideration by the nurses.

Zamanzadeh et al. reported that "Paying attention to pain and relieving it" and "The nurse's observing his/her own personal hygiene" were focused on by the patients and certain interventions such as "Paying attention to changes in the patient's weight", "Making the environment fragrant", and "Satisfying the patient's health needs" were unimportant to the nurses(1), because hiring aides and dividing the duties cause patients to consider patients' health needs to be less important and ask the aides to satisfy them. Besides that, the majority of well-trained nurses occupy managerial and monitoring positions and abandon delivering clinical care directly to patients.

In the current and Ebrahimi et al. studies, certain actions such as "Informing the patient of his/her admission and discharge" and "Informing the patient of the results of the tests and treatment" were reported to be taken with relatively desirable quality from the nurses' perspectives. In Beech and Norman study (35), the nurses' failure to describe therapeutic activities and in Schroder et al. study (30), lack of having psychiatric patients cooperate with and be informed of medical procedures were reported to be implemented with low quality, while according to the Charter of Rights, patients have right to be informed about their disease and treatment.

According to the current study, moral distress level was moderate in 288 nurses, potentially representing that over 50% of the study population suffered from moral distress. This finding is in agreement with those studies that reported the levels of moral distress to be moderate to high (13, 14, 36-39). Although in our study, the effect of moral distress was not marked on the quality of care, according to the researcher's experiences with clinical care and from the perspectives of nurses who are involved in clinical practice and taking care of

patients, moral distress is exacerbated when students and caregivers are assisting in taking care of patients as well as due to lack of necessary coordinations in teamworks for certain reasons such as inadequate resources, delivering futile medical care, lack of respect for patient independence, physician-nurse relationship, and inability to avoid patient's death, which can affect indirectly nurses' clinical performance and care quality.

Hamrick et al. reported the level of moral distress to be at least moderate (40), which is inconsistent with the present study because they used the revised MDS in the adult and pediatric ICUs, while the current study and other above cited studies were conducted in the ICUs. This inconsistency in the findings can be therefore due to standard and safety environmental conditions in which Hamrick et al. conducted their study and did not examine the effects of such conditions on care quality.

Mean score for moral distress in the psychiatric department was 137.8 that represents a moderate level. This finding is consistent with Ebrahimi et al. study (36) and inconsistent with Ohnishi et al. (41) study. This inconsistency may be due Ohnishi et al.'s use of the MDS-P. Taken together, the severity of moral distress in different wards varies for certain reasons such as increased workload, inadequate workforce, lack of early diagnosis, treatment team's incompetence, and inadequate cost and time. Ameri et al. (42) and Rice et al. (43) reported that moral distress levels were high among the nurses of oncology wards, which confirms our findings.

In our study, delivering nursing care not per the standard procedures and inadequate nursing staffing were reported two of the causes of moral distress as with Corley et al. (38), Ohnishi et al. (41), and De Veer et al. (44) studies. Beikmoradi et al. argued that dealing with different incompetent medical and nursing categories and delivering nonstandard care were the main reasons for moral distress (11). Cheraghi and Rabiei (45) considered understaffing and inadequate number of beds and time to be the main causes of moral distress, and Hamrick et al. (46) reported inadequate time and understaffing to be the

main reasons for this condition. Førde and Aasland argued that long-term treatment is a cause of moral distress among the physicians(47). Inadequate nursing staffing is therefore a key factor for development of moral distress (41), and staffing should be paid further attention to cope with moral distress.

In the light of the above-mentioned, increasing nursing staff that is an important step to preventing burnout, increasing the time of taking care of patients, and conducting nursing procedures appropriately, can play a significant role in decreasing moral distress and increasing care.

Regarding to the patient's disregard, 60% of the nurses reported to experience moderate to high levels of moral distress, which is consistent with Wilkinson study (48). Ameri et al. reported score for moral distress to be higher in ignoring informed consent. Nurses are predisposed to developing moral distress due to others' decisions and therapeutic actions (49). It is therefore recommended not to evaluate the processes and performance according to written reports in healthcare system. In addition, adequate funding and time should be specified to have patients cooperate with treatment and nurses make diagnosis and examine patients carefully.

In decision-making power domain, 60% of the nurses reported to experience moderate levels of moral distress, which is in agreement with Abbaszadeh et al. (50) and Zuzelo (51) studies reporting that nurses experienced moral distress when they felt that they could not convince the physicians and were ignored, and Wilkinson study reporting that discontinuing treatment without nurse's participation was a cause of moral distress. Accordingly, the area of nurses' decision-making should be expended so that nursing profession is sufficiently respected and nursing profession status is enhanced, and managers should adopt certain strategies to give nurses independence in implementing some medical procedures to improve care if necessary.

Regarding professional competence, 64% of the nurses experienced moderate to high levels of moral distress, which is in agreement with Ebrahimi et al. study reporting a significant correlation between moral distress and clinical competence among the physicians and nurses (52). It is therefore necessary to take final examinations in educational area and then compare theoretical teachings with clinical practice as well as to take certain actions to remove current gap between theory and practice, and enhance clinical practice in order to promote care quality and reduce moral distress.

In the light of the current study results, further studies should be conducted on association between moral distress and the quality of care from both nurses' and patients' perspectives, the causes of moral distress and approaches to relieve it in clinical practice, the identification and promotion of effective strategies on the quality of medical care, comparison of nurses' and patients' perspectives on care priorities and quality. At managerial level, inadequate nursing staffing can be reported to high-ranking managers as a risk factor for the care quality, and necessary steps can be taken, through establishing standards, measuring real performance, and comparing it with the standards, for clinical education of staff based on the current facilities and elicitation of their feedback; then, necessary corrective actions can be taken and confounding factors can be controlled for. Because the design of our study was descriptive-correlational, its findings are less likely to be generalizable to other communities compared to those of qualitative works, and therefore inconsistent findings may be obtained by similar studies in other communities.

Conclusion

The findings of the present study highlight and therefore necessitate the adjustment and implementation of programs for reducing tension and developing efficient nursing management to provide and maintain efficient nursing staff in order to effectively promote nursing care quality.

Conflict of interest

The authors declare no conflict of interest.

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References

1. Zamanzadeh V, Moghaddasian S, Valizadeh L, Haghighi Khoshkho N. Moghaiesye Didghah Parastaran va Bimaran dar morede keifiat Moraghebathaye Paraestari eraee shodeh dar Bimarestanhaye Amozeshi. J Nurs Midwifery. 2006;2(1):4-12. [Persian]

2. Webster. Anonymous Websters Universal college dictionary. Newyork: Gramercy Books; 2001.

3. Firozeh A, Hanieh R, Farideh A, Habibi S, Habibzadeh S, Mohammadi K. Evaluation of patient satisfaction about hospital staff performance. J Caduceus. 2010;3(2):16-20 [Persian].

4. Pikanen A, Hatonen H, Kuosmanen L, Valimaki M. Patients description of nursing interventions supporting quality of life in acute psychiatric wards: A qualitative study. Int J Nurs Stud. 2008;45(11):1598-606.

5. Pazargadi M, Zagheri Tafreshi M, Saeedi ZA. Nurses' perspectives on quality of nursing care: a qualitative study. Res Med. 2007;31(2):155-8.

6. Burhans LM, Alligood M. Quality nursing care in the words of nurses. J Adv Nurs. 2010;66(8):1689-97.

7. Khaki S, Esmaeil Pourzanjani S, Mashouf S. The relationship of ethical observance of nurses with quality of care from patients' point of view. J Clin Nurs Midwifery. 2016;4(3):1-11. [Persian]

8. Driscoll A, Currey J, George M, Davidson PM. Changes in health service delivery for cardiac patients: implications for workforce planning and patient outcomes. Aust Crit Care. 2013;26(2):55-7.

9. Corley MC, Minick P, Elswick RK, Jacobs M. Nurse Moral Distress and Ethical Work Environment. Nurs Ethics. 2005;12(4):381-90.

10. Kelly B. Preserving moral integrity: a follow-up study with new graduate nurses. J Adv Nurs. 1998;28(5):1134-45.

11. Beikmoradi A, Rabiee S, Khatiban M, Cheraghi MA. Nurses' distress in intensive care unit: a survey in teaching hospitals. Iran J Med Ethics Med. 2012;5(2):58-69. [Persian]

12. Atashzadeh Shorideh F, Ashktorab T, Yaghmaei F. Iranian intensive care unit nurses' moral distress: a content analysis. Nurs Ethics. 2012;19(4):464-78.

13. Maiden J, Georges JM, Connelly CD. Moral distress, compassion fatigue, and perceptions about medication errors in certified critical care nurses. Dimens Crit Care Nurs. 2011;30(6):339-45.

14. Elpern EH, Covert B, Kleinpell R. Moral distress of staff nurses in a medical intensive care unit. Am J Crit Care. 2005;14(6):523-30.

15. Sadeghi M, Ebrahimi H, Aghayan S. Evaluation of the Moral Distress and Related Factors in Clinical Nurses of Shahroud City. Iran J Psychiatr Nurs. 2015;3(11):20-8. [Persian]

16. Austin W, Lemermeyer G, Goldberg L, Bergum V, Johnson MS. Moral distress in healthcare practice: the situation of nurses. HEC Forum. 2005;17(1):33-48.

17. Ebrahimi H, Nikravesh M, Oskouie F, Ahmadi F. Stress: major reaction of nurses to the context of ethical decision making. Razi J Med Sci. 2007;14(54):7-15. [Persian].

18. Barlem ELD, Lunardi VL, Lunardi GL, Tomaschewski-Barlem JG, Almeida AS, Hirsch CD. Psycometric characteristics of the Moral Distress Scale in Brazilian nursing professionals. Texto & Contexto – Enfermagem. 2014;23(3):563-72.

19. Merghati Khoiee E, Vaziri MH, Alizadegan Sh, Motavallian SA, Razzaghi kashani M, Ashrafoddin Goushegir S, et al. Developing the Moral Distress Scale in the Population of Iranian Nurses. Iran J Psychiat. 2008;3(2):55-8. [Persian]

20. Joolaee S, Jalili HR, Rafii F, Hajibabaee F, Haghani H. Relationship between Moral Distress and Job Satisfaction among Nurses of Tehran University of Medical Sciences Hospitals. J Hayat. 2012;18(1):42-51. [Persian]

21. Ebrahimi H, Namdar.H, Vahidi.M. Relationship of nurses perception from mental illness stigma and quality of nusing care in psychiatric wards of teaching hospitals in North West of Iran [master Thesis] Tabriz: Tabriz University of medical sciences; 2010. [Persian]

22. Nobahar M. Care Quality in Critical Cardiac Units from Nurses Perspective: A Content analysis. J Qual Res Health Sci. 2014;3(2):149-61. [Persian]

23. Mahmoodi Shan G, Alhani F, Ahmadi F, Kazemnejad A. Ethics in nurses' lifestyle: a qualitative study. Iran J Med Ethics Hist Med. 2009; 2(4):63-78.

24. Van Bogaert P, Kowalski C, Weeks SM, Van Heusden D, Clarke SP. The relationship between nurse practice environment, nurse work characteristics, burnout and job outcome and quality of nursing care: a cross-sectional survey. Int J Nurs Stud. 2013;50(12):1667-77.

25. Kwak C, Chung BY, Xu Y, Eun-Jung C. Relationship of job satisfaction with perceived organizational support and quality of care among South Korean nurses: a questionnaire survey. Int J Nurs Stud. 2010;47(10):1292-8.

26. Schubert M, Ausserhofer D, Desmedt M, Schwendimann R, Lesaffre E, Li B, et al. Levels and correlates of implicit rationing of nursing care in Swiss acute care hospitals-a cross sectional study. Int J Nurs Stud. 2013;50(2):230-9.

27. Mehr News Agency. 1000 Nurses Emigrate from Iran/Reduction Bet of Nurses Migratin.Mehr [News ID: 86197] 2015; Available from: http://www.mehrnews.com/news/3756528/

28. Rafii F, Haghdoost Oskouie SF, Nikravesh M. Conditions Affecting Quality of Nursing Care in Burn Centers of Tehran. Iran J Nurs. 2007;20(51):7-24.

29. Hyrkäs K, Paunonen-Ilmonen M. The effects of clinical supervision on the quality of care: examining the results of team supervision. J Adv Nurs. 2001;33(4):492-502.

30. Schroder A, Ahlström G, Larsson B. Patients' perceptions of the concept of the quality of care in the psychiatric setting: a phenomenographic study. J Clin Nurs. 2006;15(1):93-102.

31. Hansson L, Bjorkman T, Berglund I. What is important in psychiatric inpatient care? Quality of care from the patient's perspective. Qual Assur Health Care. 1993;5(1):41-7.

32. Reed F, Fitzgerald L. The mixed attitudes of nurse's to caring for people with mental illness in a rural general hospital. Int J Ment Health Nurs. 2005;14(4):249-57.

33. Neishabory M, Raeisdana N, Ghorbani R, T Sadeghi. Nurses' and patients' viewpoints regarding quality of nursing care in the teaching hospitals of Semnan University of Medical Sciences, 2009. Koomesh. 2011;12(2):134-43. [Persian]

34. Tazakori Z, Mehri S, Mobaraki N, Dadashi L, Ahmadi Y, Shokri F, et al. Factors Affecting on Quality of Clinical Education from. Perspectives of Operating Room Students. J Health Care. 2015;17(2):128-36. [Persian].

35. Beech P, Norman IJ. Patients' perceptions of the quality of psychiatric nursing care: findings from a small-scale descriptive study. J Clin Nurs. 1995;4(2):117-23.

36. Ebrahimi H, Kazemi A, Asghari Jafarabadi M, Azarm A. Moral distress in nurses working in educational hospitalsof Northwest medical of Iran. Iran J Med Ethics Hist Med. 2013;6(4):80-8. [Persian]

37. Joolaee S, Jalili H, Rafiee F, Haggani H. The relationship between nurses' perceptions of Moral Distress and moral atmosphere of the workplace in selected training centers. Iran J Med Ethics Hist Med. 2011;4(4):56-66. [Persian]

38. Corley MC, Elswick RK, Gorman M, Clor T. Development and evaluation of a moral distress scale. J Adv Nurs. 2001;33(2):250-6.

39. McClendon H, Buckner E. Distressing situations in the intensive care unit: a descriptive study of nurses' responses. Dimens Crit Care Nurs. 2007;26(5):199-206.

40. Hamric AB, Borchers CT, Gingell Epstein E. Development and Testing of an Instrument to Measure Moral Distress in Healthcare Professionals. AJOB Prim Res. 2012;3(2):1-9.

41. Ohnishi K, Ohgushi Y, Nakano M, Fujii H, Tanaka H, Kitaoka K, et al. Moral distress experienced by psychiatric nurses in Japan. Nurs Ethics. 2010;17(6):726-40.

42. Ameri M, Safavi Bayat Z, AshktorabT, Kavoosi A, Vaezi A. Moral distress: evaluating nurses' experiences. Iran J Med Ethics Hist Med. 2013;6(1):64-73. [Persian]

43. Rice EM, Rady Y, Hamrick A, Verheijde JL, Pendergast DK. Determinants of moral distress in medical and surgical nurses at an adult acute tertiary care hospital. J Nurs Manag. 2008;16(3):360-73.

44. De Veer AJ, Francke AL, Struijs A, Willems DL. Determinants of moral distress in daily nursing practice:A cross sectional correlational questionnaire survey. Int J Nurs Stud. 2013;50(1):100-8.

45. Gheraghi MA, Rabiei S. Moral distress effective factorsin nurses and phycisian in particular sections health centers in Hamadan University of Medical Sciences. [Ms dissertation]. Hamadan: Hamadan University of Medical Sciences; 2010. [Persian]

46. Hamric AB, Davis WS, Childress MD. Moral distress in health care professionals. Pharos Alpha Omega Alpha Honor Med Soc. 2006;69(1):16-23.

47. Førde R, Aasland OG. Moral distress among Norwegian doctors. J Med Ethics. 2008;34(7):521-5.

48. Wilkinson J. Moral distress in nursing practice: experience and effect. Nurs Forum. 1987-1988;23(1):16-29.

49. Hunt G. Ethical Issues in Nursing. London: Taylor and Francis group; 2005.

50. Abbaszadeh A, Borhani F, Kalantari S. The moral distress of nurses in health centers in the city of Bam in 1390. Med Ethics J. 2011;5(17):119-39.

51. Zuzelo PR. Exploring the moral distress of registered nurses. Nurs Ethics. 2007;14(3):344-59.

52. Ebrahimi H, Kazemi A, Asghari Jafarabadi M, Azarm A. Moral distress and its influencing factors from the perspective of nurses in teaching hospitals in North West Iran. [Ms dissertation]. Tabriz: Tabriz University of medical sciences; 2013. [Persian]