Original Research

Evaluation Of The Level Of Moral Distress In Nurses And Physicians Involved With Patients With New Coronavirus (COVID 19)

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Abstract:

Background:

The spread of new coronavirus in the world and its intensification as a pandemic has challenged the world health system. Meanwhile, physicians and nurses at the forefront of the fight against this disease, due to its emergence and lack of treatment resources may face ethical challenges in treating patients.

Methods:

This cross-sectional study was performed in 2020 on nurses and physicians working in hospitals affiliated to Mashhad University of Medical Sciences, who were in contact with patients with COVID-19. Moral distress was measured using the Corley Questionnaire. Data analysis was performed using SPSS software version 18 and descriptive and inferential tests.

Results:

117 nurses and physicians involved with patients with the COVID-19 in hospitals in Mashhad participated in the study. 67.5% were nurses and 32.5% were physicians. The majority of them were women (65%) and more than half of them had a bachelor's degree (55.6%). 70.9% of them had direct contact with COVID-19 patients. The frequency of the level of moral distress in the majority of personnel involved with patients with coronavirus was moderate (66.7). Also, the severity of distress and its recurrence in personnel were 66.7% and 65.8%, respectively. The level of severe moral distress in nurses (32.9%) was higher than physicians (28.9%). Also, the severity and recurrence of moral distress were reported in nurses higher than physicians.

Conclusion:

Nurses, as the group that has the most duration and intensity of contact with patients with coronavirus, experience more moral distress than physicians. However, the level of moral distress in physicians could not be ignored. This highlights the need for guidelines to address these ethical challenges. Identifying these challenges should be on the agenda of future qualitative studies.

Keywords: Moral distress, Nurses, Physicians, Coronavirus, COVID 19.

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Introduction

As of April 27, 2020, the 2019 coronavirus (COVID-19) epidemic has affected more than 10 million people worldwide. Acute Respiratory Syndrome of Coronavirus 2 (SARS-CoV-2) is common in almost all countries and has caused widespread health challenges and sometimes social instability (1). With the increase in the number of COVID-19 approved cases in Iran, physicians and nurses at the forefront of health care responses find themselves in the face of unprecedented situations, and sometimes very important decisions are needed for patients and their personal lives. Ideally, the ethical frameworks, guidelines, and guidelines for each section were prepared in advance and made available to the treatment staff (2). But in the event of an epidemic or pandemic emerging crisis, frameworks and guidelines will not be readily available. Nurses across the country struggle with fears about the impact of COVID-19 on patients, families, and the healthcare system. Concerns about the safety and health of health care professionals, the availability of appropriate protective equipment, and access to adequate ventilation equipment and medications needed to support patients who are seriously ill cause moral distress (3). The concept of moral distress was first proposed by Jampton and then explored and developed by many researchers. He first explored the concept of moral distress in 1983. A noteworthy point in the definition is that a person has the necessary ability and knowledge, but is unable to do so due to mental or actual limitations (4). This epidemic disease leads to a significant increase in the number of patients who need long-term ventilation support for acute respiratory failure, which potentially leads to a severe imbalance between the clinical needs of the population and the overall availability of ICU resources (5). In this scenario, the criteria for entering the ICU (and discharge) need to be guided not only by the clinically appropriate principles and appropriateness of care but also by the criteria for equitable distribution and allocation of health care resources, which may contribute to ethical challenges (6). There is a fundamental difference between clinical medicine and public health. While in clinical medicine the focus is on the patient, in public health it is on the population. Clinical medicine cares for people after the onset of the disease and therefore emphasizes reducing pain and emotional stress (7). Public health, on the other hand, works with a healthy population to prevent disease or the spread of infection. In epidemics such as COVID-19, there is a very smooth distinction between the two approaches. Public health and population protection are a priority, and all government interventions are aimed at controlling infection and reducing morbidity and mortality (8). The basic principles of clinical ethics, including respect for individual rights, values, preferences, care for individual needs, prevention of unnecessary harm, and discrimination against infected people, may all get ignored in such emergencies (9). Physicians whose primary education is individual patient care are forced to adopt public health strategies during epidemics, leading to moral distress. It is observed that patients in isolated wards are often alone and without any social or psychological support. To reduce the risk of infection, health care providers do not visit these patients frequently. All caregivers in personal protective equipment are quite similar to robots that do not have warm faces and smiles to reassure patients. Many medical centers have deployed robots to distribute food and medicine to patients in isolated wards, thus eliminating even human contact (10). Touch, which is one of the most valuable means of communication between a healthcare provider and a patient, is minimized to reduce the transmission of infection. This aspect of the patient- health care provider relationship, when hospitalized in isolated wards, is one of the new ethical challenges (9). Another issue is working with drugs that we are not sure are effective.

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Under these circumstances, the dignity of the patient's burial ceremony is lost, and families whose COVID-19 patients die are not allowed to bury normally (9). Given that the level of moral distress has a significant impact on the social and occupational role of medical staff and we are currently in a challenging situation in this area, so the purpose of this study was to investigate the status of moral distress in nurses and physicians involved with patients with COVID-19 in hospitals in Mashhad in 2020.

Methods

This cross-sectional study was performed in 2020 with available sampling on nurses and physicians working in hospitals affiliated to Mashhad University of Medical Sciences. Nurses and physicians who were in contact with and care for patients with COVID-19 were included in the study. Inclusion criteria were: nurses and physicians working in Mashhad University of Medical Sciences with an age range of 30 to 50 years and exclusion criteria included: Lack of cooperation in the implementation of the plan by nurses and physicians. To determine the sample size, the study of Abbaszadeh et al. showed that the score of moral distress in nurses in Birjand is equal to 2.25 6 0.6 (11). Using G-power software and considering alpha 0.05, the sample size for nurses was calculated equal to 48 people. Taking into account 20% of the sample volume loss for each group (physician and nurse) was equal to 60 (120 in total). After obtaining permission from the ethics committee (IR.MUMS.REC.1399.236), the nurses and physicians were explained how to conduct this research. Given the prevalence of coronavirus and the fact that the distribution of the questionnaire itself can cause the spread of this disease, the researchers sought to make information tools available electronically and through the internet to nurses and physicians. Before the start, they were assured that their information, contact number, and telephone number would be kept confidential.

Moral distress was measured using the Corley Questionnaire. This questionnaire consists of 21 questions and includes situations in which a person shows the severity and repetition of moral distress by being in those situations. Its options are arranged in terms of intensity from not at all (zero) to very high (six) and in case of repetition from never (zero) to frequently (six) (11).ʹ Validity and reliability of this tool were shown in the study of Abbaszadeh et al.. The content validity of this questionnaire and its reliability were calculated through the internal correlation coefficient and Cronbach's alpha of 93% (11-12).

A 7-point Likert scale was used to answer the questions. On this scale, the number 6 indicates the greatest amount of moral distress and the number zero indicates the absence of moral distress. The total score for the severity and repetition of moral distress is 0-216 so that the score of 0-72 indicates the level of distress at a low level, the score of 144-73 indicates moderate distress, and the score of 216-145 indicates the severe moral distress (13).

Data analysis was using SPSS software version 18. Quantitative variables were described by central and dispersion indices. The qualitative variable was described by frequency and frequency percentage. Comparison of quantitative variables in the two groups was by Student t-test and in case of non-compliance with normal distribution by Mann-Whitney test. Comparison of quantitative variables in the three groups by ANOVA test and case of non-compliance with normal distribution by Kruskal-Wallis test. The relationship between quantitative variables and each other was assessed by the Pearson correlation test. All tests were bilateral and the significance level was $p < 0.05$. In all calculations, the value of 0.05 was considered a significant level.

Results

117 nurses and physicians involved with patients with COVID 19 in Mashhad University Hospitals participated in the study.

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67.5% were nurses and 32.5% were physicians. The majority of them were women (65%) and more than half of them had a bachelor's degree (55.6%). 70.9% of them had direct contact with COVID-19 patients (Table 1).

The frequency of the level of moral distress in the majority of personnel involved with patients with coronavirus was moderate (66.7). Also, the severity of distress and its recurrence in personnel were 66.7 and 65.8%, respectively (Table 2).

Figure 1 shows the level of moral distress in nurses and physicians. The level of severe moral distress in nurses (32.9%) was higher than physicians (28.9%). Also, the severity and recurrence of moral distress were reported in nurses higher than physicians.

Moral distress scores were observed in nurses higher than physicians, in women higher than men, in those over 40 years of age higher than younger ages, and staff with a Ph.D. higher than other levels. Also, the total score of moral distress in personnel directly involved with COVID-19 patients was lower than non-personnel involved. However, the results of statistical analysis showed that the score of moral distress in nurses and physicians was not significant in terms of demographic variables ($p > 0.05$).

The severity of moral distress was higher in nurses than physicians, higher in women than men, higher than other ages between 31-40 years, and higher in staff with Ph.D. and master's degrees. Also, the score of severity of moral distress in personnel directly involved with COVID-19 patients was lower than non-personnel involved. However, the results of statistical analysis showed that the score of moral distress in nurses and physicians was not significant in terms of demographic variables ($p < 0.05$). (Table 4).

The recurrence score of moral distress was higher in nurses than physicians, higher in women than men, higher in age between 40-31 years, and higher in personnel with PhD and master's degrees. Also, the repetition score of moral distress in personnel directly involved with COVID-19 patients was lower than non-personnel involved; However, the results of statistical analysis showed that the recurrence score of moral distress in nurses and physicians was not significant in terms of demographic variables ($p < 0.05$). (Table 5).

Discussion

The COVID-19 crisis poses unprecedented challenges for healthcare professionals at the forefront of dealing with COVID-19, including the inadequate supply of personal protective equipment (PPE), scarcity of resources for critically ill patients in need of intensive care, and how to communicate with patients. Having a coronavirus and related issues has created the body of a person who has died due to coronavirus and so on. As a result, many nurses and other health care providers are now experiencing moral distress, which is a major barrier to effective service delivery with the unpredictable growth of patients. Moral distress actually means knowing the right thing to do but not being able to do it, due to facing mental and moral limitations. This threatens our core medical, nursing, and moral values. Many nurses report that they leave their jobs or even leave the nursing profession due to moral distress. Moral distress occurs when a person is unable to do what he or she believes is morally appropriate or right. It is a psychological response to the experience of conflict or moral restraint, which occurs especially in public health emergencies and in other situations where there are severe resource constraints on patient care and the safety of health care workers.

In the present study, due to the unprecedented increase in the number of people with COVID-19 infection in the country, the moral distress among physicians and nurses working in wards dedicated to coronavirus patients was investigated. The results showed that the frequency of the level of moral distress in the majority of personnel involved with patients

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with coronavirus was moderate (66.7). At present, no specific study has examined the severity of moral distress among COVID-19 ward personnel. However, in previous studies such as the study of Abbasi et al. (14), the level of moral distress in the pre-coronary period averaged about 50, which was relatively lower than the scores obtained in our study.

Also, the severity of distress and its recurrence in personnel were 66.7% and 65.8%, respectively. The level of severe moral distress in nurses (32.9%) was higher than physicians (28.9%). Also, the severity and recurrence of moral distress were reported in nurses higher than physicians. Demographic variables did not affect the distress of physicians and nurses. In the study of systematic review and meta-analysis by Hossein Yekta Koushali et al. (15), 12 studies examining 2655 nurses with an average age of 32.3 and work experience of 1 - 25 years, mean severity and recurrence of moral distress based on the Corely questionnaire both between 20 There were 40 variables. These values are much lower than what was observed in our study. This is a wake-up call to the emergence of new cases of moral distress that are naturally associated with the outbreak of coronavirus.

So moral distress must be examined more carefully because it can have a profound effect on the doctor, the nurse, their patients, the hospital, and the health of the community on many levels. This level of moral distress can be associated with burnout, fatigue, depression, patient care errors, distance from patients, and reduced job satisfaction of medical staff, which are urgently needed to control the epidemic in the country (16-17).

The management of coronavirus infection and the risk to the family of the medical staff are some of the issues that have added to these ethical challenges. Physicians and other health professionals know that caring for COVID-19 patients means that they may put their families at risk. The next issue in COVID-19 pandemics is the increase in healthcare inequalities, and this is significant pressure for healthcare professionals. The epidemic has also deprived patients and physicians of the usual human communication that is important in medical care. Epidemics raise ethical concerns about limited resource allocation. At the forefront of patient management, these concerns are not scientific or theoretical but have important implications for the well-being of patients and even the medical staff alike. In the meantime, the burden of decision-making is on the shoulders of physicians and nurses, which will cause anxiety and unpleasant long-term consequences (18).

In the study of Shorideh et al. (19), four issues and 20 hypotheses for the moral distress of intensive care unit nurses in Iran were identified. In their study, an important understanding of the experience of moral distress in intensive care unit nurses is presented. This qualitative study showed that intensive care unit nurses experience a wide range of causes of moral distress. They reported four main issues for describing nurses' moral distress in the intensive care unit (ICU): (a) Institutional barriers and limitations. (B) Communication problems (c) Useless actions, medical errors, and mistakes (d) Responsibilities, resources, and authority to use resources for patients.

In previous studies, Burston and Tuckett identified factors influencing moral distress. In their study, they identified internal factors, environmental factors, and external factors in moral distress. All of these divisions date back to pre-coronavirus times. In line with the current era of a major pandemic in the world, in nursing intrinsic factors, nurses' perceptions of the nurse's role during COVID-19, their level of management skills for an epidemic, their ability to communicate with the nurse/physician It is noticeable. Importantly in terms of internal factors, they must be provided with sufficient emotional, financial, and physical resources to care for their families while caring for people with COVID-19. These

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internal factors are not stable but variable depending on the day conditions of the epidemic. The health system must be on the lookout for medical staff in these unpredictable situations. Factors beyond the support of the medical staff, such as environmental factors, are more challenging. For example, is there adequate personal protective equipment, can we identify a person with COVID-19, is there a sufficient bed or respirator for those who need it at the hospital, does the hospital have enough nurses to Meeting the needs of people affected by Covid-19 (20). However, the constant challenge of maintaining the resources needed to provide high quality and safe medical and nursing services can accelerate moral distress (21). The COVID-19 epidemic has led to hospital visits being banned to ensure that relatives and other family members, patients, or healthcare professionals are not infected. Family members can no longer be with the patient, and the ICU team is unable to provide structural communication and support to family members. At the end of life, the medical staff should not deprive family members of the opportunity to say goodbye to the patient, which in the current situation is challenging to practice this moral principle.

One of the main limitations of the present study is the lack of accurate identification of the type of challenges that confront the treatment staff with moral distress. Therefore, in future studies, these issues are expected to be examined qualitatively so that we can provide a solution to solve them. One of the strengths of this study is that it is not repetitive during the corona pandemic in Iran.

Conclusion

A large number of patients in the new coronavirus epidemic has raised numerous ethical concerns that treatment staff may face. The result of these concerns and challenges is manifested in the form of moral distress in the medical staff. In the present study, the high level of moral distress compared to the pre-coronary period was warned that it is a warning sign for public health, medical staff, and epidemic control.

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Tables

Table 1: Frequency of demographic variables in nurses and physicians involved with patients with coronavirus

Variable	Demographic information	Abundance	Percentage

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Job rank	Nurse	79	67.5 %
	Physician	38	%32.5
Gender	Female	41	.35%
	Male	76	%65
Degree Of Education	Specialist doctor	24	20.5%
	PhD	2	1.7%
	Professional PhD	13	11.1%
	Associate	4	3.4%
	Bachelor	65	55.6%
	Master	9	7.7%
Direct engagement with COVID-19 patients and their care	Yes	83	70.9%
	No	34	29.1%

Table 2: Frequency of the level of moral distress and its dimensions in nurses and physicians involved with patients with coronavirus

	Total	Low		Medium		Severe	
	Mean±SD	N	%	N	%	N	%
Distress severity score	67.52± 16.42	2	%1.7	78	66.7%	37	31.6%
Distress repetition score	65.16±81.77	6	%5.1	77	65.8%	34	29.1%
The total score of moral distress	132.67±32.87	2	%1.7	78	66.7%	37	31.6%

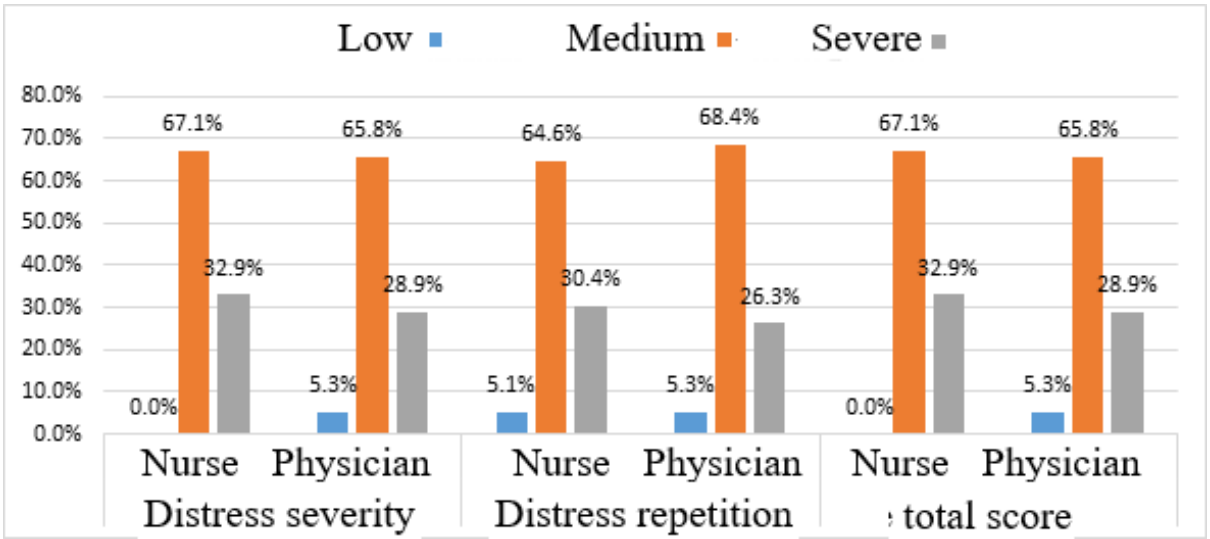


Figure 1: The level of moral distress in nurses and physicians

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Table 3: Moral Distress Scores in Nurses and Physicians by Demographic Variables

Distress Scores		Mean	SD	P-value
Job Rank	Nurse	135.29	33.49	0.214
	Physician	127.21	31.26	
Gender	Male	126.49	34.90	0.136
	Female	136	31.45	
Age	<=30	132.81	32.15	0.214
	31-40	136.55	33.83	
	>=41	128.43	32.46	
Degree of Education	Specialist doctor	123.42	28.80	0.598
	PhD	153.50	37.48	
	Professional Doctor	130.15	33.96	
	Associate	135.75	25.32	
	Bachelor	134.48	31.48	
	M.Sc.	141.89	50.19	
Direct involvement with COVID-19 patients	Yes	130.58	32.86	0.285
	No	137.76	32.80	

Table 4: Score of the severity of moral distress in nurses and physicians in terms of demographic variables

Distress Scores		Mean	SD	P-value
Job Rank	Nurse	68.90	16.26	0.244
	Physician	64.66	16.62	
Gender	Male	64.29	17.49	0.119
	Female	69.26	15.66	
Age	<=30	68.88	15.84	0.380
	31-40	69.30	15.97	
	>=41	64.82	17.24	
Degree of Education	Specialist doctor	63.17	14.28	0.609
	PhD	76.50	20.51	
	Professional Doctor	65.38	19.93	
	Associate	68	7.87	
	Bachelor	68.05	15.17	
	M.Sc.	76.22	25.32	

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Direct involvement with COVID-19 patients	Yes	66.34	16.49	0.312
	No	70.41	16.13	

Table 5: Repetition score of moral distress in nurses and physicians in terms of demographic variables

Distress Scores		Average	SD	P-value
Job Rank	Nurse	68.90	16.26	0.309
	Physician	64.66	16.62	
Gender	Male	64.29	17.49	0.218
	Female	69.26	15.66	
Age	<=30	63.92	17.82	0.309
	31-40	67.30	18.81	
	>=41	63.61	19.47	
Degree of Education	Specialist doctor	63.17	14.28	0.743
	PhD	76.50	20.51	
	Professional Doctor	65.38	19.93	
	Associate	68	7.87	
	Bachelor	68.05	15.17	
	M.Sc.	76.22	25.32	
Direct involvement with COVID-19 patients	Yes	66.34	16.49	0.421
	No	70.41	16.13	

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