

Relationship of Moral Sensitivity and Distress Among Physicians

Nasrin NejadSarvari¹; Mahmoud Abbasi²; Fariba Borhani²; Ali Ebrahimi³; Hamidreza Rasooli³; Mohammad Hosein Kalantar Motamedi³; Mehrzad Kiani^{1,*}; Shabnam Bazmi¹

¹Department of Medical Ethics, School of Traditional Medicine, Shahid Beheshti University of Medical Sciences, Tehran, IR Iran

²Department of Ethics, Medical Ethics and Law Research Center, Shahid Beheshti University of Medical Sciences, Tehran, IR Iran

³Trauma Research Center, Baqiyatallah University of Medical Sciences, Tehran, IR Iran

*Corresponding author: Mehrzad Kiani, Department of Medical Ethics, School of Traditional Medicine, Shahid Beheshti University of Medical Sciences, Tehran, IR Iran. Tel/Fax: +98-2188043702, E-mail: mehrzad.kiani1341@gmail.com

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Background: Providing health services is described as an important moral measure, since its major aim is to ensure the welfare of the people who need treatment and care. Moral sensitivity is the ability to identify the existing moral problem and understand the moral consequences of the decisions made on the patient's part. Physicians are always exposed to moral distress due to various circumstances.

Objectives: In this survey, we evaluated moral sensitivity and moral distress among physicians and the relationship of these ethical factors on them. Hence, we assessed y relationship between moral sensitivity and moral distress in physicians will facilitate their sound management so as to provide high-quality and safe health services. Moreover it will confirm proposed theories regarding this subject.

Materials and Methods: This cross-sectional descriptive-analytic study aimed at investigating the relationship between moral sensitivity and moral distress among 321 specialist physicians working in hospitals affiliated to Tehran Medical Universities in Tehran. The samples were selected through two-stage random cluster sampling method. A three-partite questionnaire comprising of demographic characteristics, moral distress, and moral sensitivity was used for collecting data which then were analyzed using SPSS-20.

Results: There was a negative significant relationship between moral sensitivity and moral distress frequency; there was a positive significant relationship between moral sensitivity and moral distress intensity. Participating in medical ethics courses increased moral sensitivity and decreased the frequency of moral distress.

Conclusions: Participating in medical ethics courses increased moral sensitivity and decreased the frequency of moral distress.

Keywords: Moral; Physicians; Medical Ethics

1. Background

Providing health services is an important moral measure since its major aim is to ensure the welfare of the people who need treatment and care (1). Ethics not only has to do with priorities and the distribution of health-care services at an organizational level, but also is concerned with moral decision-making at an interpersonal level (2). Moral sensitivity is the ability to identify the existing moral problem and understand the moral consequences of the decisions made on the patient's part (3). Moral decision-making involves being sensitive to patient's vulnerability and expressing this sensitivity.

Physicians are always exposed to moral distress due to some circumstances, such as taking action despite one's conscience, not providing full treatment due to the financial weakness of a patient, ineffective treatment, lack of time, patients on a long waiting list, lack of resource and organizational factors (4). Our previous study found moral distress among Iranian physicians (5); the consequences are anger, hopelessness, depression, shamefulness, distress, sadness, disappointment and feeling miserable (6, 7). Its long-term consequences emerge due

to unresolved moral distresses, which are called moral residue. Moral residue is characterized by tolerance, compromise, silence and getting used to the situation (reconciliation) (7). Acting against professional values and interests destructs one's moral integrity and brings about job dissatisfaction, leaving their job, and most importantly, not providing high-quality and safe health care to patients (8).

If moral decision making is faced with situations that cause moral distress, a therapist will not be able to recognize situations and moral issues, and make good decisions. Recognizing distressing and morally problematic situations is highly important in decision-making processes. Fulfilling this highly important task not only requires moral knowledge, but also requires moral sensitivity (9, 10). Individuals who possess moral sensitivity are capable of solving ethical conflicts. Moreover, they are capable of forming a sensory and intellectual perception of individuals' vulnerable situations, and are aware of moral consequences that are important in making decisions for others (11). It is believed that in clinical contexts,

responding to morally distressing situations is related to criteria such as moral sensitivity (12). In healthcare, morality is an inter-related and dynamic process that is suggested by moral sensitivity (13).

2. Objectives

In this survey, we evaluated moral sensitivity and moral distress among physicians.

3. Materials and Methods

The present descriptive-cross-sectional study was performed on physicians practicing in hospitals affiliated to the Tehran University of Medical Sciences. The inclusion criteria were recruitment in the hospital, and at least one year of experience as a specialist. Two-stage random cluster sampling method was used. Participants were selected from hospitals based on all participants. The survey was kept open for four weeks. A total of 321 of 694 physicians were involved in this study.

Our tool consisted of a three-part questionnaire. The first part evaluated demographic features. The second part was a revised moral sensitivity questionnaire developed by Kim Lutzen (14, 15). The third part was a revised moral distress questionnaire developed by Hamric (16). Content validity Index (CVI) was used for this study. The agreement coefficient of researchers' comments was 92%. The 25-item questionnaire was translated. Then, the reliability was determined. Its reliability was examined by test re-test method in 20 subjects with a one-week interval. The reliability coefficient was calculated to be 0.92 which signified an appropriate reliability. Its construct validity was tested through factor analysis.

For evaluating the questionnaires, Likert's scaling was used. Cronbach alpha was estimated 0.78 and for all factors of the questionnaire was estimated between 0.74 to 0.78. Its grading varied from high disagreement = 1 to high agreement = 5.

Hamric's MDS-R questionnaire was used to edit the moral distress questionnaire. This questionnaire took 3 factors into account in measuring moral distress. These factors were "individual responsibility", "not in the patient's best interest" and "deception".

3.1. Data Analysis

Appropriate correlational statistics were used to examine relationships among variables. Also, multiple linear regression analysis was used to assess the association between the several variables simultaneously. Quantitative variables were compared between groups using the Student's t-test or Kruskal-Wallis and Mann-Whitney U-test, depending on whether normal or non-normally distributed variables were used, respectively. We checked all data for a normal distribution using the Kolmogorov-Smirnov test, and then data were analyzed using SPSS 20 software (SPSS, Chicago, IL, USA). P-values less than 0.05 were considered statistically significant. Additionally, a

principal axis factor analysis with varimax rotation was conducted to assess the construct validity of the scale. The number of factors was decided by the Eigen value of the factor over 1.0. Items with first factor loadings of more than 0.4 were selected for configuration. Also, Cronbach's alpha was calculated for the items of each factor to examine internal consistency.

3.2. Ethical Consideration

The study proposal was approved by the ethics committee of Shahid Beheshti University of medical sciences (Ethics code N-153) and legal permissions were obtained prior to collection of data. The participants were briefed on the voluntary nature of their participation in the study and were provided with all the necessary information on study objectives and how to complete the questionnaires before beginning to do so. Furthermore, participants were asked not to write their name on questionnaires.

4. Results

4.1. Demographic Characteristics

321 physicians completed the questionnaire; 114 surgeons, 110 internists, 28 anesthesiologists, 38 podiatrists, 14 specialists in emergency medicine and 17 others. The mean \pm SD age of the participants was 41.31 ± 7.00 years, and 138 (43.0%) were male. The mean \pm SD years of experience working as a physician was 12.39 (6.83%). The 264 (82.2%) of participants were married and 162 (50.5%) of them had participated in medical ethics training courses.

4.2. Moral Sensitivity

Five factors had been identified which described 58.75% of the variance. Bartlett's adequacy ratio of the test was 0.88 which was significant ($P < 0.001$). With respect to the subjectivity of the items, named "ethical competency" referred to knowing and understanding responsibilities, professional moral codes, and taking responsible action in solving moral issues at bedside. The second factor as with Kim Lutzen's work in 1995, was called "structuring moral meaning" that referred to the ways in which moral meanings are extracted from made decisions and taken actions. Factor 3 included "experiencing moral conflict," it referred to experiencing potential moral conflicts in different situations. Factor 4 was called "expressing benevolence." It referred to the moral motivation to do "good work" or doing actions in the patient's favor. Factor 5 included the subjectivity of its items, called "patient-centered therapeutic relationships." It referred to the quality of patient-doctor therapeutic relationships with respect to patient-centered behaviors.

4.3. Moral Distress

Mean scores for items on the moral distress intensity score ranged from 0.85 to 3.42, with an overall mean total

score of 2.17 ± 0.80 . Mean scores for items on the moral distress frequency score ranged from 0.1 to 2.59, with an overall mean total score of 1.24 ± 0.64 . The highest-scoring items for moral distress frequency score was “witness diminished patient care quality due to poor team communication” (mean \pm SD; 2.59 ± 1.40). The highest-scoring items for moral distress intensity score was “due to the shortage of drugs and medical equipment, I could not provide the appropriate treatment for the patient” (mean \pm SD, 3.41 ± 1.06).

4.4. The Relationship of Moral Sensitivity and Demographic Characteristics

There was a positive and significant relationship between the overall moral sensitivity score and age ($P = 0.02$ and $r = 0.140$). Mean (standard deviation) of moral sensitivity among individuals who had participated in medical ethics courses was $91.87(10.85)$, and for the individuals who had not participated in medical ethics courses was $85.17(15.42)$, and their difference was also significant ($P < 0.001$). Moreover, according individuals who had participated in the course scored higher on “therapeutic patient-centered relationships,” “ethical competency,” and “structuring moral meaning” ($P < 0.001$). The overall mean (standard deviation) in female and male physicians was different ($P = 0.048$). Moral sensitivity among specialists in emergency medicine was the lowest and its difference with other specialists was significant ($P < 0.001$) and pediatricians showed the highest mean on moral sensitivity. They showed a high mean difference with specialists in emergency medicine and anesthesiologists ($P < 0.001$). The highest mean 17.11 ± 3.73 in meaning factor was observed in internists. It showed a significant difference among surgeons, anesthesiologists, and pediatricians ($P < 0.001$).

4.5. The Relationship of Moral Distress and Demographics

The relationship between the frequency of moral distress and age was significant ($r = 0.189$, $P < 0.01$). Moreover, “individual responsibility” and “not in the patient’s best interest” had a negative significant relationship with age and moral distress ($r = -0.189$, $P < 0.01$, $r = -0.191$, $P < 0.01$). The relationship between overall moral distress frequency and job experience was negatively significant ($r = -0.139$, $P < 0.01$). “Ethical competency” and “not in the patient’s best interest” had a negative significant relationship with job experience.

The relationship between intensity and frequency of moral distress in the specialist in emergency medicine 51.35 ± 2.92 was the highest compared to other specialist, this difference was significant ($P < 0.001$). Mean \pm SD frequency of moral distress in pediatricians (16.5 ± 7.35) had the lowest relative to other professionals and this difference was significant.

Their relationship between moral distress frequency and moral sensitivity was negatively significant ($r = -0.512$, $P < 0.001$). The relationship between moral distress intensity and moral sensitivity was positively significant ($r = 0.309$, $P < 0.001$). The frequency of “individual responsibility” of moral distress and “ethical competency” of moral sensitivity showed the highest correlation coefficient. It was negatively significant ($r = -0.637$, $P < 0.001$). “Ethical competence,” “patient-centered therapeutic relationship,” and “structuring moral meaning” factors from moral sensitivity questionnaire had a positive significant relationship with the intensity of “individual responsibility” and moral distress ($P < 0.01$). Moreover, the frequency of “individual responsibility” of moral distress had a positive significant relationship with the overall score of moral sensitivity ($r = 0.236$, $P < 0.01$).

The intensity of “not in patient’s best interest” factor of moral distress had a positively significant relationship with all moral sensitivity factors ($P < 0.01$). Also, its relationship with the overall score on moral sensitivity was positively significant ($r = 0.345$, $P < 0.01$).

“Experiencing moral conflict” and “expressing benevolence” from moral sensitivity, and “deception” factor from moral distress were not significant ($P > 0.05$), while other factors from moral sensitivity had a positive significant relationship with the intensity of “deception” factor ($P < 0.01$). The relationship between “individual responsibility” from moral sensitivity and the overall score of moral distress intensity was positively significant ($r = 0.603$, $P < 0.01$). The relationship between the overall moral distress intensity and the overall moral sensitivity was also positive and significant ($r = 0.309$, $P < 0.001$).

4.6. Multi-Variable Analysis of the Relationship of Moral Sensitivity, Moral Distress, and Demographic Characteristics

The relationship between moral sensitivity, intensity, and the frequency of moral distress and demographic characteristics was investigated simultaneously using multi-variable regression. It was shown that 38.2% of the frequency of moral distress was described by moral sensitivity with the variables, such as age, sex, and participation in medical ethics course ($R\text{-Square} = 0.382$, $P < 0.001$, $F = 39.63$). Age coefficient was a significant predictor for the frequency of moral distress ($P = 0.016$, -0.245). Moreover, this negative coefficient shows the negative relationship between age and the frequency of moral distress. Moral sensitivity was a significant predictor for the frequency of moral distress ($P < 0.001$, -0.517). Participation in medical ethics courses was also a significant predictor for the frequency of moral distress ($P < 0.001$, -5.877). Moreover, using a linear multi-variable regression, the relationship between moral distress intensity and moral sensitivity and participation in medical ethics courses showed that 31.6% of moral distress intensity was described by moral sensitivity variables, such as age, sex, and participation

in medical ethics courses (R-Square = 0.316, F = 7.12, P < 0.001). Among variables, the only positive and significant one was moral sensitivity coefficient. With an increase in moral sensitivity, moral distress increased, providing that all other variables are fixed, including age, sex, and participation in medical ethics classes (B = 0.4, P < 0.001).

5. Discussion

5.1. Theoretical Framework

5.1.1. Moral Distress

The term moral distress was first used by Jameton to refer to a phenomenon which occurred when nurses failed to carry out actions that they believed to be morally appropriate (17-20). Later, Jameton divided moral distress into two categories of initial and reactive moral distress. The former is due to organizational barriers and conflicts with another's values and is characterized by hopelessness, anger, and anxiety. The latter is due to leaving the former type of moral distress unresolved and is characterized by tolerance, compromise, silence, and getting used to the situations (21). Later, Hamric and Epstein stressed the importance of moral residue and reactive moral distress (7, 8). Kalvemark considered moral distress as "traditional negative stress symptoms that occur due to situations that involve ethical dimensions and where the healthcare provider feels she/he is not able to preserve all interests and values at stake" (19).

5.1.2. Moral sensitivity

Historically, the philosophical notion of moral sensitivity could be traced back to the idea of "moral sense" (13). The "moral sense" was thought to close the gap between moral knowledge and moral behavior by providing a motive for action (11). Lutzen defined moral sensitivity as the "inner voice" that leads to decision-making (11). He considered it as the immediate understanding of a patient's vulnerability and awareness of the moral notions underlying his/her decisions. Later, he defined moral sensitivity as one's awareness of his/her own sense of responsibility, moral load, and moral capability (1). Rest defined sensitivity as one's awareness of the way his/her actions affect others (22). He described four psychological processes regarding moral behavior (11, 14). The first being moral sensitivity (22).

In a previous study, we investigated moral distress among Iranian physicians and compared the results to those of similar studies in other countries (5). It was found out that the physicians under study showed a high moral sensitivity, a moderate to high moral distress intensity and a low to moderate frequency of moral distress. These results show that although Iranian physicians did not face many distressing situations, they experience a high intensity moral distress in dealing with such situations. This could

be due to the high moral sensitivity of Iranian physicians, since identifying morally distressing and problematic situations in clinical decision-making, not only requires moral knowledge, but also requires moral sensitivity. No similar study showing the relationship between moral sensitivity and moral distress was found. However, many investigated moral sensitivity or moral distress alone, or their relationships to other moral components.

Our study showed that there is a relationship between moral sensitivity and moral distress. This emphasizes Lutzen's position, which claims moral sensitivity and moral distress have a relationship due to their relationship to moral agent (11). On one hand, moral sensitivity originates from an individual's unpleasant feelings, including moral distress when he/she cannot act upon (11). On the other hand, when due to moral sensitivity, an individual becomes aware of a moral issue and his/her moral responsibility, and makes the morally correct choice, but when is unable to put it into action, he/she experiences moral distress.

Clinical physicians with an underdeveloped moral sensitivity may fail in identifying the existing situations, and in turn, fail in fulfilling the necessity of taking moral action or dealing with taking immoral action (12).

We found a negative relationship between moral sensitivity and the frequency of moral distress. This result may be because the moral sensitivity is a requirement for having a clear understanding of what is really moral (22). Hence, what a physician feels may not necessarily be a moral distress, especially since with an increase in ethical competency factor in moral sensitivity, moral distress frequency of "individual responsibility" showed the highest decrease. It signifies that when a physician is highly capable of identifying his personal and professional responsibilities with respect to the existing situations, due to his/her moral competency, he/she carries out all his/her activities based on moral principles, codes, and rules appropriate to the situation (23). Hence, he/she experiences a lower moral distress.

It was also concluded that intensity of moral distress increases by an increase in moral sensitivity. Moral sensitivity, as a trait, makes the individual capable of identifying and choosing the moral action correctly in a given situation (11, 24). Hence, if an individual is not capable of putting his/her moral decision into action, despite his/her moral sensitivity, he/she will experience a more intense moral distress (11). Hence, individuals in the same situation will experience various levels of moral distress based on their moral sensitivity.

Our study showed that with an increase in moral sensitivity, excluding "Experiencing moral conflict", "expressing benevolence" factors increases the intensity of "deception" factor of moral distress. However with increasing all moral sensitivity factors, the intensity of "not in patient's best interest" factor of moral distress increases. This shows that compared to other physicians, Iranian physicians have a higher moral sensitivity in taking action in patient's

interests, with a sense of responsibility, they avoid carrying out actions against the patient's interests.

Our study showed that moral distress frequency decreases with an increase in age. It was also found out that with an increase in age, moral sensitivity also increases. It is due to the fact that with an increase in age, other than recognizing and calling the information appropriate to the situations, other capabilities also increase, including social recognition in understanding behavior and situations and infer intents and causes of behavior. Results showed that as Iranian physicians became older, they showed a higher tendency to express benevolence, however Lutzen et al. also showed in a study that as age increases, autonomy factor in moral sensitivity increases (15).

Participating in medical ethics courses decreased moral distress frequency. Results showed that people who had participated in the courses showed a higher moral sensitivity, especially in "therapeutic patient-centered relationships," "ethical competency" and "structuring moral meaning." In other words, we can improve some factors through training, including communication skills with patients, paying more attention to patient's autonomy in treatment process, sense of responsibility based on professional codes and rules, and the ability to identify and understand ethical implications of decisions.

Park et al. (25) showed that senior students scored a higher moral score in "conflict" and "patient-oriented care conflict" factors, compared to freshmen. They showed that training can improve moral sensitivity of students.

In a study on nurses, Abduo et al. (26) observed a significant difference in moral sensitivity, expressing benevolence factor in particular, with marital status, age-group, educational competency, and academic status.

Our study did not show a significant relationship between moral sensitivity with years of work experience. In a study on nurses, however, Lutzen et al. showed that moral sensitivity increases by experience and is not fixed and independent from the context (3).

Women scored higher than men in moral sensitivity and it was evident in dimensions such as "ethical competency" and "structuring moral meaning". It was also shown that moral distress frequency in men was higher than women. It shows that although men dealt with more instances of morally distressing situations, women experienced a higher moral distress (2).

Lutzen et al. (3) showed that with respect to "meaning", "relationship", and "benevolence" dimensions, female physicians scored higher than male physicians. Male physicians, however, scored higher on "experiencing conflict" and "rules". While most studies show that women pay more attention to expressing benevolence among moral sensitivity dimensions, men emphasized the sense of responsibility and understanding professional codes and rules. We found that moral sensitivity was the highest among pediatricians, while it was the lowest among emergency medicine specialists. While this difference among pediatricians was significantly higher than emergency

medicine specialists and anesthesiologists with respect to moral sensitivity, internists scored higher on structuring moral meaning than surgeons, anesthesiologists, and pediatricians. Results showed that pediatricians showed the least frequency and the highest intensity in moral distress, while emergency medicine specialists showed the highest frequency and the least intensity. This difference can imply the dominant moral atmosphere in different healthcare units (11, 27), and that an individual's perception of the dominant moral atmosphere affects their approach and behavior. Hence, from an organizational ethics perspective, there should be a shift of attention from individuals to system with respect to ethics. A positive perception of the moral atmosphere of workplace affects individual's motivation and approach, and in turn balances moral distress. Different specialist sections affect other moral components with their different moral atmospheres. Hence, any step that needs to be taken for changing moral behavior must focus on moral and social structure of organizations (11).

Cetin et al. reported the effect of workplace on moral sensitivity (27). As in our study, they emphasized the effect of organization and moral atmosphere on moral components.

Therefore, further interventional studies must be carried out regarding the effect of training and moral atmosphere on moral sensitivity and moral distress among Iranian physicians.

Although the response rate was not high in this survey, this study had a response rate of 46.2% and shows that moral distress in the studied physicians in this study is not only affected by external factors and experience, but that personal factors such as moral sensitivity also play a role in their occurrence and intensity.

Therefore, promoting one's moral sensitivity leads into their moral competency, and in turn, he/she will experience less moral distress. Therefore both of them are proportionally required.

Participation in medical ethics courses increased moral sensitivity. Hence, health policymakers should hold medical ethics courses in order to increase moral competency and sensitivity, and prevent the repetition of moral distress in providing safe and high-quality treatment.

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Authors' Contributions

Nasrin Nejadsarvari: doing research and writing article; Mahmoud Abbasi: supervising research process; Fariba Borhani: consultant of research process; Ali Ebrahimi: article writing; Hamidreza Rasooli: methodology of research;

Kalantar Motamedi MH: language editing of article; Mehrazad Kiani: supervising research process; Shabnam Bazmi: consultant of research process.

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