# Investigating of Moral Distress and Attitude to Euthanasia in the Intensive Care Unit Nurses

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## Abstract

*Background:* Considering the religious and legal structures in Iran, the occurrence of euthanasia seems to be impossible; however, the attitude of nurses towards euthanasia and its related factors may also affect creating moral distress conditions for nurses. Therefore, this study aimed to investigate of the moral distress and attitude of Adult and Neonatal Intensive Care Units (AICU/ NICU) nurses toward euthanasia.

*Materials and Methods:* In this descriptive-analytical study, all the nurses working in intensive care units of Educational Hospitals affiliated with Ahvaz Jundishapur University of Medical Sciences (Ahvaz city, Iran) were selected by census. Data were collected using Corley's Moral Distress Scale and Holloway's Euthanasia Attitude Scale. Single-variable and multivariate linear regression tests were used to analyze the data and to determine the relationships between independent and dependent variables. Analyses were done using SPSS software (version 22).

*Results:* The attitude of all nurses towards euthanasia was negative (min score=20, max score=73, mean score= 43.78±7.99). The mean Moral distress frequency and Moral distress intensify were 47.01±12.90 and 48.42±11.62, respectively (indicates moderate ethical distress). In AICU nurses, there was a significant relationship between the frequency of moral distress and the nurses' attitudes. However, there was no significant relationship between the intensity of moral distress and the nurses' attitudes. In NICU nurses, there was no significant relationship between the frequency of moral distress and intensity of moral distress with nurses' attitude toward euthanasia.

*Conclusion:* The religious and cultural conditions of the country have caused all nurses did not consider euthanasia to be acceptable under any circumstances. Further studies are needed to better understand the attitude of nurses towards euthanasia, especially with regard to the culture of Iranian society.

*Key Words:* Euthanasia, ICU, Moral Distress, Moral Sensitivity, Nurses.

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## 1- INTRODUCTION

The development of medical knowledge and technology has been accompanied by increased discourse on professional ethics observance and its application in clinical settings. Patient care is always associated with ethics and moral considerations (1). Specific features of nursing profession and different work culture in health institutions and in the health care system have exposed nurses to higher levels of moral distress than those in other professions. Moral distress is a powerful factor; it can directly or indirectly affect nurses and their moral integrity (2). In ICUs, the incidence of moral distress increases and this is due to the high need for moral decision-making in patient care and treatment in critical situations. About 67% of ICU nurses experience moral distress (3).

In addition to the symptoms such as headache, digestive disorders, anger, feeling guilty, depression, exhaustion and decreased confidence, distressed nurses also experience job dissatisfaction, job burnout and turnover. Moral distress also affects patient care (4). One of the most important issues that may lead to moral distress is the issue of end-of-life care or euthanasia (5). Euthanasia is associated with many challenges, both in adults and in infants. There is almost no hope for returning these patients to normal life. Besides enduring pains and unnecessary treatments; they continuously pass through the end of their lives and their families also suffer a lot during this period.

Another issue is bed occupancy in the health system, which can sometimes really save the lives of those who are more likely to survive (6). However, euthanasia is contrary to the orders of the divine religions (7). In addition, euthanasia can have negative moral consequences, such as prevalence of suicide and killing elderly, defenseless and unwanted patients in the community (8). Active ending of life of newborn babies is a crime worldwide (9). However, sometimes health care providers and parents may not agree with prolonging babies' life and their further suffering (10). There are many controversies over the morality of euthanasia in infants (11). Some consider it an immoral act and others believe that an infant is not an adult and cannot decide for his/her future; therefore, euthanasia will not harm him/her (9). Because of the nature of their job, nurses are more likely to face dying patients who ask for euthanasia (12). Regarding euthanasia, nurses are faced with many uncertain and controversial issues, including: the true nature of nursing, the dignity of nursing profession and most importantly, the autonomy and independence of nurses to the physicians and patients. The confrontation of nurses with controversies related to euthanasia can increase their moral distress (13).

Nursing experiences can play a valuable role in euthanasia discussions. Nurses all over the world face euthanasia requests from dying patients; however, their beliefs and attitudes are rarely considered in the decision-making process (14). On the other hand, Iran is an Islamic country and considers euthanasia contrary to God's commands; thus, when faced with euthanasia requests, nurses will experience severe duality between their beliefs and professional practice and will suffer from moral distress. Considering the different views of nurses in different cultural and religious structures and the significant role of nurses in dying patients' care and numerous requests for euthanasia by patients and their families, the present study was conducted to investigate the level of moral distress and attitude of intensive care unit nurses toward euthanasia and their relationship in Iran as an Islamic country. The second aim of the study was to determine the demographic factors affecting moral distress and attitude towards euthanasia.

## 2- MATERIALS AND METHODS

### 2-1. Design and settings

This descriptive-analytic study was conducted in the Adult and Neonatal Intensive Care Units (AICU/NICU) of 5 Educational Hospitals affiliated with Ahvaz Jundishapur University of Medical Sciences, Ahvaz city, Khuzestan province, South West of Iran, during 2016-2017. Samples were selected by census. The total number of nurses working in AICU/NICU in educational hospitals affiliated to Ahvaz University of Medical Sciences was 149; of these, 109 satisfied and participated in the study. Finally, 100 nurses completed questionnaires. The inclusion criteria included holding at least a bachelor's degree in nursing and a minimum of 1 year experience in intensive care unit.

### 2-2. Measurement and data collection tools

The data were collected using a three-part questionnaire. The first part was used to collect demographic information; the second part contained Corley's Moral Distress Scale (15), and the third part contained Holloway's Euthanasia Attitude Scale (16). Corley's Moral Distress Scale contains 21 questions (15). The questions include situations to measure the intensity and frequency of moral distress experienced by nurses. In terms of intensity, the items are scored from 0 (not at all) to 5 (very high) and in terms of frequency, they are scored from 0 (never) to 5 (repeatedly). Higher scores reflect more severe levels of distress. A score of 0-35 indicate low ethical distress, score of 36-72 moderate ethical distress and a score between 105-73 severe ethical distress (15). The Holloway's Euthanasia Attitude Scale contains 30 questions and its items are scored from 1 (I fully disagree) to 4 (I fully agree). The minimum and maximum scores are 30 and 120, respectively. A score of between 120-75 indicates a positive attitude toward euthanasia and

score less than 75 indicates a negative attitude toward euthanasia (16). The reliability and validity of this questionnaire have already been measured in Iran (5, 17). The reliability of the questionnaires was also calculated using Cronbach's alpha coefficient. The Cronbach's alpha coefficient was 0.92 for the moral distress questionnaire and 0.81 for the euthanasia attitude questionnaire.

### 2-3. Ethical considerations

This study was approved by the Ethics Committee of Ahvaz Jundishapur University of Medical Sciences (ID number: 95s26). In addition, while insisting on the confidentiality of information, the participants were assured that their information will only be used in this study and will not be available to other people. All the participants received and signed the informed written consent.

### 2-4. Data analysis

Analyses were done using SPSS software version 22.0 (SPSS, Inc, Chicago). Data were described as mean ± standard deviation (SD) for normally distributed variables, as median (minimum, maximum) for skewed variables, and as frequency (percent) for categorical variables. Single-variable and multivariate linear regression tests were used to analyze the data and to determine the relationships between independent and dependent variables. To conduct the simple linear regression test, each of the independent variables such as the demographic variables, was inserted into the model individually. Then, those variables with p-values less than 0.2 entered into the final multivariate regression model. Finally, non-standard beta coefficients and p-valves were reported for each of the independent variables. The Pearson correlation coefficient was used to analyze the relationship between the variables of euthanasia and moral distress. P-value less than 0.05 were statistically significant.

## 3- RESULTS

The present study was conducted to investigate the level of moral distress and attitude of intensive care unit nurses toward euthanasia and their relationship in Iran as an Islamic country. The mean age of nurses was 29.93 years ($\pm$ 4.48). Out of the total of 100 nurses, 79 (79%) were female, 97 (97%) held a bachelor's degree and 52 (52%) were formal employees. From the total score of 120, mean attitude toward euthanasia was 43.78$\pm$7.99 (indicates negative attitude toward euthanasia) and from the total score of 105 the mean Moral distress frequency and Moral distress intensify were 47.01$\pm$12.90 and 48.42$\pm$11.62, respectively (indicates moderate ethical distress) (**Table.1**).

### 3-1. Factors related to nurses' attitude toward euthanasia

To conduct the simple linear regression test, each of the independent variables, such as the demographic variables, was inserted into the model individually. There were significant relationships between the variables of age, gender, educational qualifications, work experience, the type of unit and employment status with attitude toward euthanasia (p <0.02) (**Table.2**). The variables with p-values less than 0.2 entered into the multivariate regression model. The multivariate regression analysis results showed that after controlling the confounding variables, on average, one year increase in the participants' age was associated with a 0.66 unit decrease in their attitude scores. This relationship was statistically significant (p <0.05) (**Table.3**).

### 3-2. Factors related to the intensity of moral distress

There were significant relationships between the variables of age, gender, educational qualifications, work experience and the type of unit with moral distress intensity score (p <0.02) (**Table.4**). The variables with p-values less than 0.2 entered into the multivariate regression model. The multivariate regression analysis results showed that after controlling the confounding variables, on average, one year increase in the participants' work experience was associated with a 1.01 unit increase in their moral distress intensity scores. This relationship was statistically significant (p <0.05) (**Table.5**).

### 3-3. Factors related to the frequency of moral distress

There were significant relationships between the variables of gender, educational qualifications and the type of unit with the frequency of moral distress (p <0.02) (**Table.6**). The variables with p-values less than 0.2 entered into the multivariate regression model. The multivariate regression analysis results showed that after controlling the confounding variables, on average, the moral distress scores of female participants were 0.67 less than those of the male participants. This relationship was statistically significant (p <0.05) (**Table.7**).

### 3-4. The relationship between attitude toward euthanasia and moral distress

In NICU nurses, there was no significant relationship between the frequency of moral distress and the nurses' attitudes (p = 0.963). In addition, there was no relationship between the intensity of moral distress and the nurses' attitudes (p = 0.976). In AICU nurses, there was a significant relationship between the frequency of moral distress and the nurses' attitudes (p = 0.046). However, there was no relationship between the intensity of moral distress and the nurses' attitudes (p= 0.777).

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**Table-1**: Nurse's demographic and job characteristics and study variables (n=100)

| Qualitative variables | | Frequency | Percent |
|---|---|---|---|
| Gender | Male | 21 | 21 |
| | Female | 79 | 79 |
| Education | BSc | 97 | 97 |
| | MSc | 3 | 3 |
| Unit | ICU | 56 | 56 |
| | NICU | 44 | 44 |
| Employment Status | Official jobs | 31 | 31 |
| | Contract jobs | 69 | 69 |

| Quantitative variables | Mean ± SD | Min | Max |
|---|---|---|---|
| Age (year) | 29.93±4.48 | 21 | 43 |
| Job experiences (year) | 6.09±3.86 | 1 | 18 |
| Attitudes towards Euthanasia | 43.78±7.99 | 20 | 73 |
| Moral distress frequency | 47.01±12.90 | 11 | 84 |
| Moral distress intensify | 48.42±11.62 | 27 | 84 |

ICU: Intensive care unit; NICU: Neonatal intensive care unit.

**Table-2**: Single-variable linear regression analysis. Factors related to attitude toward euthanasia in nurses (n=100)

| Variables | Unstandardized B | Standard Error | Single-variable linear regression analysis |
|---|---|---|---|
| Age (year) | -0.468 | 0.175 | 0.009 |
| Gender | 2.692 | 1.956 | 0.172 |
| Education | -11.469 | 4.564 | 0.014 |
| Job experiences (years) | -0.306 | 0.207 | 0.142 |
| Unit | 2.591 | 1.603 | 0.109 |
| Employment Status | 1.924 | 1.054 | 0.071 |

**Table-3**: Multivariate linear regression analysis. Factors related to attitude toward euthanasia in nurses (n=100)

| Variables | Unstandardized B | Standard Error | Multivariate linear regression analysis |
|---|---|---|---|
| Age | -0.662 | 0.225 | 0.004 |
| Gender | 2.085 | 1.859 | 0.265 |
| Education | -13.802 | 4.440 | 0.003 |
| Job experiences (years) | 0.335 | 0.268 | 0.214 |
| Unit | 2.919 | 1.497 | 0.054 |
| Employment Status | 1.371 | 1.091 | 0.212 |

**Table-4**: Single-variable linear regression analysis of factors related to the intensity of moral distress of nurses (n=100)

| Variables | Unstandardized B | Standard Error | Single-variable linear regression analysis |
|---|---|---|---|
| Age (year) | -0.327 | 0.260 | 0.212 |
| Gender | -7.841 | 2.758 | 0.005 |
| Education | 29.459 | 6.172 | 0.001 |
| Job experiences (years) | 0.407 | 0.301 | 0.179 |
| Unit | 3.178 | 2.333 | 0.176 |
| Employment Status | 0.826 | 1.541 | 0.593 |

**Table-5**: Multivariate linear regression analysis of factors related to the intensity of moral distress of nurses (n=100)

| Variables | Unstandardized B | Standard Error | Multivariate linear regression analysis |
|---|---|---|---|
| Age (year) | -0.715 | 0.301 | 0.019 |
| Gender | -4.591 | 2.524 | 0.072 |
| Education | 25.051 | 6.028 | 0.001 |
| Job experiences (years) | 1.016 | 0.347 | 0.004 |
| Unit | 3.153 | 2.027 | 0.123 |

**Table-6**: Single-variable linear regression analysis of factors related to the frequency of moral distress of nurses (n=100)

| Variables | Unstandardized B | Standard Error | Single-variable linear regression analysis |
|---|---|---|---|
| Age (year) | -0.317 | 0.289 | 0.276 |
| Gender | -7.221 | 3.099 | 0.022 |
| Education | 9.955 | 7.536 | 0.190 |
| Job experiences (years) | 0.291 | 0.336 | 0.388 |
| Unit | 4.041 | 2.581 | 0.121 |
| Employment Status | -0.173 | 1.712 | 0.920 |

**Table-7**: Multivariate linear regression analysis of factors related to the frequency of moral distress of nurses (n=100)

| Variables | Unstandardized B | Standard Error | Multivariate linear regression analysis |
|---|---|---|---|
| Gender | -6.796 | 3.143 | 0.033 |
| Education | 5.834 | 7.528 | 0.440 |
| Unit | 3.946 | 2.536 | 0.123 |

## 4- DISCUSSION

The main aim of this study was to investigate the relationship between moral distress and euthanasia in ICU nurses. There was a significant relationship between the frequency of moral distress and the attitude of nurses toward euthanasia (p = 0.033). In other words, increasing attitude toward euthanasia will increase the frequency of moral distress. In addition, there was a significant relationship between the frequency of moral distress and the attitude of ICU nurses toward euthanasia (p=0.046). Previous studies suggest that there is a significant relationship between moral distress and the attitude of nurses toward euthanasia. Elmore believes that confrontation of ICU nurses with euthanasia and end-of-life issues affects their level of moral distress (18). Dzeng et al. in the qualitative study observed that U.S. medical interns experienced high levels of moral distress when performing end-of-life interventions (19). Borhani et al. concluded that futile end-of-life care is associated with moral distress experienced by nurses (20). Hamric and Blackhall examined moral distress tools. They also believed that euthanasia and its decision-making factors can affect moral distress levels (21). However, the results of this study showed that there was no significant relationship between the intensity of moral distress and the attitude of ICU and NICU nurses toward euthanasia (p = 0.618). This may be due to the cultural, religious and moral environment of Iran. In this study, no case of euthanasia was observed; because this phenomenon is not accepted by Iranian people as well as the nursing

community. In the present study, it was also found that the attitude toward euthanasia decreased with aging (p = 0.004), which is similar to other studies (12, 22). The attitudes of female NICU nurses toward euthanasia were significantly higher than those of male nurses (p = 0.04), which is consistent with the results of the study of Terkamo-Moisio et al. (22). Other studies have suggested that women experience a higher level of moral distress than men (23, 24). However, in this study, moral distress levels were significantly lower in female nurses than male nurses (p = 0.03). This may be due to the higher number of female nurses (79 out of 100 nurses) in the present study. In the present study, Moral distress levels increased with increasing nurses' work experience (p = 0.01). This may be due to the increased moral sensitivity. Consistent with the results of the present study, Shoorideh et al. also concluded that there is a positive relationship between work experience in ICUs and levels of moral distress in nurses (25). The results of the study of Elpern et al. also confirmed that more experienced nurses experience higher levels of moral distress (26). However, the results of the study of Wilkinson et al. are not consistent with the results of this study (27). However, further studies are required in this regard. The research variables had a subjective nature and some effective factors may have not been well controlled by the researcher and this was one of the limitations of the present study.

## 5- CONCLUSION

The religious and cultural conditions of the country have caused all nurses did not consider euthanasia to be acceptable under any circumstances. In general, the results showed that issues of ethics and euthanasia are associated with many challenges among ICU/NICU nurses. Authorities must pay more attention to ethics in students' curricula. In this regard, planning

is essential to familiarize nurses with the phenomenon of euthanasia and its causes. Increasing nurses' awareness about this phenomenon and empowering them to use compatible effective mechanisms will prevent many consequences. Further studies are needed to better understand the attitude of nurses towards euthanasia, especially with regard to the culture of Iranian society.

## 6- CONFLICT OF INTEREST: None.

## 7- ACKNOWLEDGMENT

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