



The Relationship Between Students' Attitude Toward Euthanasia and Optimism: A Descriptive Study

Ebrahim Hazrati¹, Ali Reza Alizadeh² and Zahra Sadat Asadi^{3, 4, *}

¹Department of Anesthesiology and Critical Care, Aja University of Medical Sciences, Tehran, Iran

²Department of Anesthesiology and Pain, Aja University of Medical Sciences, Tehran, Iran

³Department of Community Medicine, Aja University of Medical Sciences, Tehran, Iran

⁴Epidemiology Research Center, Aja University of Medical Sciences, Tehran, Iran

*Corresponding author: Assistant Professor of Health Education and Promotion, Department of Community Medicine and Epidemiology Research Center, Aja University of Medical Sciences, Tehran, Iran. Tel: +98-9124031933, Emails: zasadi@ajaums.ac.ir; 2006.asadi@gmail.com

Received 2019 February 22; Revised 2019 June 15; Accepted 2019 June 20.

Abstract

Background: Attitude and decision-making about continuing the therapeutic interventions for the end-of-life patients are the essential skills required by the health care system creating many scientific, ethical, religious, and legal challenges, and sometimes making it difficult to make decisions.

Objectives: The present study aimed to investigate euthanasia attitude and its relationship with optimism among the medical and nursing students of Aja University of Medical Science.

Methods: In the present descriptive-analytical study, 150 clinical students were selected by census method. Data collection tool included demographic information, optimism questionnaire, and euthanasia attitude questionnaire. The data were analyzed by SPSS with the usage of parametric and nonparametric tests. A significance level of 0.05 was considered.

Results: The mean scores of euthanasia attitude among nursing and medical students were 23.2 (2.31), and 23.72 (2.4), respectively. Mann-Whitney test indicated no significant difference between the two groups ($P = 0.22$). The mean scores of optimism among nursing and medical students was 23.4 (3.81) and 24.6 (4.62), respectively, although no significant difference was found between the two groups ($P = 0.07$). Among all of the selected students, a direct and significant correlation was observed between optimism and euthanasia attitude ($P = 0.007$ and $r = 0.219$).

Conclusions: The students had an unfavorable euthanasia attitude while optimism was favorable. Thus, qualitative studies are suggested for the formation of euthanasia attitude and its relationship with personality traits.

Keywords: Euthanasia, Optimism, Attitude

1. Background

During the recent decades, the main cause of mortality has changed from acute infectious diseases to cardiovascular disease, accidents, and malignancies. Although new treatments have increased the lifespan of such patients, the importance of these diseases is associated with many disabilities for patients and a clear decrease in their quality of life. On the other hand, the presence of new care technologies in intensive care units has made the disabled patients, even those who are brain dead, survive in intensive care units. Most of these patients suffer from a lot of pain without any hope of recovery (1). On the other hand, a lot of expenses may be imposed on the family or health system. Thus, the issue of murder is related to pity or euthanasia with new dimensions. Particularly, it is worth considering the needs of patients in such cases by reinforcing the prin-

ciple of autonomy or self-righteousness in modern medical ethics. The way of treating the patients in the days and hours of their lives has always been a problem for health care providers including physicians and nurses (2). Making a decision to continue the therapeutic interventions of the end-of-life care patients are the essential skills required by the health care system creating many scientific, ethical, religious, and legal challenges, and sometimes making it difficult to make decisions. Euthanasia is considered as one of the issues raised for the end-of-life care patients. The term "euthanasia" was derived from two words (eu) meaning good and (thanatus) meaning death. Euthanasia refers to killing someone suffering from an incurable disease without causing any pain. In addition, it is the synonym for murder due to pity (3). From the public's point of view, physicians are the best choice for euthanasia due to the fact that they have access to the necessary tools and

knowledge as well as the medicines, which are effective in the rapid and painless killing of humans (4).

In the content of all divine religions, killing a human being is forbidden and since euthanasia is a kind of murder, and appropriate care and attention to the end-of-life care patients are regarded by all religions, Islam does not allow voluntary death to individuals (3). However, there is an increasing pressure to resolve this issue whether physicians and other therapists can contribute to the death of patients in specific circumstances due to the request of patients or families or should generally avoid this issue (5). Several studies were conducted on euthanasia around the world. The quantitative and descriptive study conducted in South Africa on 277 third-year and fourth-year medical students aimed at examining the euthanasia attitude of future physicians as well as indicated that 52.7% of students believed that euthanasia should be legalized. Furthermore, most students (80.1%) believed that the Medical Ethics Committee should be in charge of decision-making in regards to euthanasia while 49.1% of students stated that they would end the life of patients suffering from pain, 36.1% believed that they would not take any action, and 35% stated that they would provide conditions for the patient to end his life (6). Another review study evaluated the health care providers' euthanasia attitude. The main questions raised in this study were "what is the role of health care providers in euthanasia attitude?" and "what challenges do health care providers face on the patient's request on euthanasia attitude?". Among 1715 articles, 33 articles on nurses, patients, social workers, physicians, and examiners were subject to thematic analysis. The results indicated that euthanasia requires the development of a protocol and law in terms of the roles of health care providers. This study indicated that there is no accurate information from the viewpoint of health care providers at the time of request (7). Another study examined and compared the euthanasia attitude of Iranian and American students regarding their individual and cultural characteristics. The results indicated that the American samples had a more positive attitude toward euthanasia while diversity and dispersion were observed among the Iranian samples. Honesty, humility, and openness to experience were the predictive factors in both Iranian and American samples. However, agreeableness is considered as a predictor among the Iranians (8). Another qualitative study explained the challenges faced by Canadian physicians performing euthanasia. A number of 16 physicians in Canada went under semi-structured interviews by telephone. The results indicated that the physicians faced these challenges: (1) improving the relationship with the colleagues performing euthanasia and the tension of the relationship with other colleagues, (2) insufficient financial damages regarding

the time they allocated, and (3) large loads of work in such a way that their personal time was sacrificed (9). Regarding the studies conducted in Iran, a descriptive-analytical study was conducted on 165 students to examine their euthanasia attitude and their personality traits. The results indicated that religious beliefs, honesty-humility, agreeableness, and extraversion were associated with a negative attitude toward euthanasia while openness was related to euthanasia acceptance (10). A study of 190 students addressed altruism and other personality traits with euthanasia acceptance. Higher scores in altruism, humility, honesty, agreeableness, and conscientiousness were associated with euthanasia non-acceptance. Altruism explained the most variance of euthanasia attitude beyond gender, religion, and personality factors (11). Further, a descriptive study on 266 nurses from Hajar and Kashani hospitals in Iran indicated that 57.4%, 3.2%, and 39.5% of nurses had negative and positive attitudes toward euthanasia (12). Another descriptive study by Alborzi et al., among the nurses of the intensive care unit for infants and adults in terms of euthanasia attitude in Jondishapur Hospital, Ahwaz indicated that the attitude of all nurses to euthanasia was negative and there was a significant difference between euthanasia attitude and moral distress. However, no significant relationship was found between the severity of moral distress and euthanasia attitude. In this study, it was concluded that the non-acceptance of euthanasia by nurses can be related to the Iranian and Islamic culture (13). Another study examined the euthanasia attitude of the patients referring to the neurology clinic and their relatives. In this study, four groups including dying patients, relatives of dying patients, patients with depressive disorder, and the patients with no depression disorder were selected. In general, 64 participants including 34 females and 30 males were studied. The results indicated no significant relationship between gender and euthanasia attitude, as well as between the four groups and attitude (14).

The two main groups involved in euthanasia are patients and physicians and studying their attitudes towards this phenomenon plays a critical role in the legal or meta-legal prevalence of such performance in hospitals. The lack of a coherent, complete, and efficient law for all aspects of euthanasia is another reason for the necessity of conducting a study regarding the attitudes of physicians and patients in regards to this issue. The studies conducted in this field in western countries cannot be generalized to Iran due to the great cultural differences and their different beliefs (15-17). Furthermore, the studies conducted in other Islamic countries can not indicate the state and needs in Iran. However, few studies have been conducted in this area in Iran.

As mentioned in the latest studies on euthanasia, some

studies were conducted in Iran with respect to the attitudes of nurses and patients. However, fewer studies were conducted in the field of euthanasia for physicians, especially their performance.

2. Objectives

The present study aimed to investigate the euthanasia attitude and its relation to optimism among the medical and nursing students of AJA University of Medical Science.

3. Methods

The present study was a descriptive study. The population included the clinical students at Imam Reza Hospital, among whom 150 nursing and medical science students were selected based on the census method. The exclusion criteria were the lack of willingness to participate in the study, being a guest at the time of completing the questionnaire (student of AJA University of Medical Science), and lack of completing the questionnaire appropriately.

3.1. Data Collection Tool

Data collection tool included a demographic questionnaire containing the information about age, field of study, academic semester, optimism questionnaire, and attitude toward euthanasia questionnaire.

3.2. Optimism Questionnaire

The Scheier and Carver optimism questionnaire or the life orientation test were first designed by Scheier and Carver for assessing individual differences in public optimism and pessimism and evaluating the intrinsic optimism. The original form of this test included 12 questions. This questionnaire was revised by Scheier, Carver, and Briggs and was turned into a 10-item test named as the revised life orientation test. The scoring of the Scheier and Carver optimism questionnaire was in the form of a four-point Likert scale from zero (completely disagree) to five (completely agree). The questions 3, 7, and 9 were scored reversely. The total score of optimism between 0 and 40 was obtained by summing up the scores of the questions. Higher scores indicated a better optimism. The validity of this questionnaire was 0.85 and its reliability was 0.82 (18). In Iran, the validity was 0.64 and the reliability was 0.72 (19).

3.3. Euthanasia Attitude Questionnaire

Euthanasia attitudes were evaluated by a researcher-made questionnaire. The relevant questionnaire was adjusted according to the review of texts, opinions, and the related professors' experiences; its validity was confirmed by the related professors. The reliability of the questionnaire was obtained as 0.60 through Cronbach's alpha. The questionnaire of students' attitude toward end-of-life care included 15 yes and no questions, where the favorable option was scored 2 and an unfavorable option was scored 1. The higher scores indicated the inappropriate euthanasia attitude among the students (minimum score of 15 and maximum score of 30).

In order to analyze the data, the mean and standard deviation of optimism and attitude of the students to end-of-life care were presented as main variables in different groups; all demographic information of participants was reported on the basis of the descriptive criteria. In order to evaluate the mean score of optimism and attitude, the Mann-Whitney test was used. In addition, the Pearson correlation was used to examine the relationship between the mean score of optimism and attitude in terms of the field of study and mean age. Furthermore, Independent Sample *t*-test and Mann-Whitney test were used to examine the relationship between optimism and attitude in terms of the field of study and academic level. The data were analyzed using SPSS version 22 software. A significance level of 0.05 was considered.

4. Results

The present study aimed to investigate the medical students' attitudes toward the end-of-life care among the end-patients in the academic year 2017 - 2018 in AJA University of Medical Science. In this study, 150 clinical students were studied, among whom 50 nursing students, 50 online students, and 50 stager. The mean age (2.35) was 23.91 and the mean scores of optimism and attitudes to the end-of-life care were 24.4 (4.39) and 23.54 (2.38), respectively.

Among all of the selected students, a direct and significant correlation was observed between optimism and euthanasia attitude ($P = 0.007$ and $r = 0.219$) while there was a negative and significant correlation between age and optimism ($P = 0.012$, $r = -0.35$), as well as between age and attitude ($P < 0.001$ and $r = -0.55$) among the nursing students. However, this correlation was not observed among the medical students. Other data related to the correlation between optimism, attitude, and age are presented in [Table 1](#) in terms of field of study and academic level.

The mean score of euthanasia attitude among nursing and medical students was respectively 23.2 (2.31) and 23.72

(2.4) while Mann-Whitney test showed no significant difference between the two groups ($P = 0.22$). The mean score of optimism among nursing and medical students was respectively 23.4 (3.81) and 24.6 (4.62), although no significant difference was found between the two groups ($P = 0.07$).

In addition, independent *t*-test and Mann-Whitney indicated no significant difference between attitude, field of study, and academic level as well as between optimism, field of study, and academic level ($P > 0.05$). Significantly, only the optimism mean score was higher in stager in comparison to nurses ($P = 0.052$); in addition, Table 2 indicates the pairwise comparison of the two considered variables.

Table 1. The Correlation Between Age, Field (Nursing, Medicine), Level (Intern, Stager), Optimism and Euthanasia Attitude

Level and Field of Study, Variables	Age	Optimism	Attitude
Total students			
Age	1		
Optimism	0.008	1	
Attitude	-0.033	0.0219 ^a	1
Stager			
Age	1		
Optimism	-0.033	1	
Attitude	0.131	0.034	1
Intern			
Age	1		
Optimism	0.05	1	
Attitude	0.040	0.321 ^a	1
Nurse			
Age	1		
Optimism	-0.353		
Attitude	-0.554	0.370 ^b	

^a $P < 0.05$.

^b $P < 0.001$.

Table 2. A Comparison of Optimism and Attitude Among Nursing and Medical Students in Terms of Academic Level

Variables	Mean (SD)	P Value
Optimism		0.336 ^a
Nurse	23.4 (3.81)	
Stager	25.2 (4.64)	0.052 ^b
Intern	24.18 (4.6)	0.234
Attitude		0.37 ^a
Nurse	23.2 (2.31)	
Stager	23.96 (2.47)	0.129
Intern	23.48 (2.34)	0.543

^aP value of stager and intern.

^bP value is significant at 0.05.

5. Discussion

The present study investigated the attitude of Army Medical University students towards end-of-life care. The mean score of optimism was about half the optimism score (maximum optimism score = 40). The mean score of euthanasia attitude was more than half of the attitude questionnaire score (maximum score of 30), indicating that students had no appropriate attitude toward euthanasia and considered the end-of-life care desirable. The results of the present study is consistent with the studies of Aghayi among nurses, on the end-of-life care (20), Moqadasian's study among the nursing students' attitudes in Tabriz and Kurdistan toward non-resuscitation on non-resuscitation and inactive euthanasia (19). In the above-mentioned studies, nurses had a favorable attitude to end-of-life care. However, the results of this study are not consistent with the study conducted among the students in the USA (8). In the above-mentioned study, medical students had a favorable euthanasia attitude while a considerable difference was observed in euthanasia attitude among the Iranian students. This lack of coordination can vary due to the differences in the culture and beliefs among the students in different educational environments.

In the present study, a correlation was observed between age and euthanasia attitude. The results of this study are in line with the study by Naseh et al., which evaluated the relationship between euthanasia and the underlying characteristics of nurses and specialists (12). However, in the above-mentioned study, an inverse association was found between euthanasia and age among nurses (12), which was incongruent with the result in the present study, in which a direct relationship was found between the age of nursing students and interns and euthanasia attitude. The results of this study are inconsistent with the studies by Hojjati et al. (21) and Aghaei et al. (20), indicating no relationship between euthanasia attitude and attitude. In another study conducted in Jordan, nurses' attitudes and their characteristics were considered and the results of this study are not in line with those of the present study. Furthermore, the age group of 40 years had a more favorable attitude than the age group of 20 - 29 years (22).

In the present study, the students' euthanasia attitudes and their optimism were directly related while optimism was associated with their inappropriate euthanasia attitude. Although no study was found to investigate this personality trait, some studies evaluated the attitude and other personality traits. In the study conducted by Aghababayi et al., the personality traits of religiously, honesty-humility, agreeableness, and extraversion were associated with a negative attitude toward euthanasia (10). Another study indicated that altruism explained the most

variance of euthanasia attitude beyond gender, religiously, and a personality factor (11), which is consistent with the findings of the present study in terms of the relationship between euthanasia attitude and the personality trait considered in the present study.

5.1. Conclusions

Based on the results, the students had an unfavorable euthanasia attitude and optimism was desirable among the students. It is recommended to conduct more comparative studies on the students of other universities and more cultural and qualitative studies on the formation of euthanasia attitude and its relationship with other personality traits.

Footnotes

Authors' Contribution: Study concept and design: Ebrahim Hazrati and Ali Reza Alizadeh; analysis and interpretation of data, critical revision of the manuscript for important intellectual content: Zahra Asadi.

Conflict of Interests: In this study, there is no conflict of interests.

Ethical Approval: The present study was conducted after being approved by the Research Council of the AJA University of Medical Sciences and gaining permission from the university and hospital.

Funding/Support: AJA University of Medical Sciences.

Patient Consent: Enough explanations were given to the participants about the project before completing the questionnaires. All information remained confidential and all participants entered the study consciously with consent.

References

- Rathor MY, Abdul Rani MF, Shahar MA, Jamalludin AR, Che Abdul-lah STB, Omar AMB, et al. Attitudes toward euthanasia and related issues among physicians and patients in a multi-cultural society of Malaysia. *J Family Med Prim Care*. 2014;**3**(3):230-7. doi: [10.4103/2249-4863.141616](#). [PubMed: [25374860](#)]. [PubMed Central: [PMC4209678](#)].
- Singer PA, Barker G, Bowman KW, Harrison C, Kernerman P, Kopelow J, et al. Hospital policy on appropriate use of life-sustaining treatment. University of Toronto Joint Centre for Bioethics/Critical Care Medicine Program Task Force. *Crit Care Med*. 2001;**29**(1):187-91. [PubMed: [11176183](#)].
- Ayuba MA. Euthanasia: A Muslim's perspective. *Scriptura*. 2016;**115**(0). doi: [10.7833/115-0-1175](#).
- Sachedina A. End-of-life: The Islamic view. *Lancet*. 2005;**366**(9487):774-9. doi: [10.1016/S0140-6736\(05\)67183-8](#). [PubMed: [16125596](#)].
- Emanuel EJ, Onwuteaka-Philipsen BD, Urwin JW, Cohen J. Attitudes and practices of euthanasia and physician-assisted suicide in the United States, Canada, and Europe. *JAMA*. 2016;**316**(1):79-90. doi: [10.1001/jama.2016.8499](#). [PubMed: [27380345](#)].
- Jacobs RK, Hendricks M. Medical students' perspectives on euthanasia and physician-assisted suicide and their views on legalising these practices in South Africa. *S Afr Med J*. 2018;**108**(6):484-9. doi: [10.7196/SAMJ.2018.v108i6.13089](#). [PubMed: [30004328](#)].
- Fujioka JK, Mirza RM, McDonald PL, Klinger CA. Implementation of medical assistance in dying: A scoping review of health care providers' perspectives. *J Pain Symptom Manage*. 2018;**55**(6):1564-76 e9. doi: [10.1016/j.jpainsymman.2018.02.011](#). [PubMed: [29477968](#)].
- Wasserman JA, Aghababaei N, Nannini D. Culture, personality, and attitudes toward euthanasia: A comparative study of university students in Iran and the United States. *OMEGA J Death Dying*. 2015;**72**(3):247-70. doi: [10.1177/0030222815575280](#).
- Khoshnood N, Hopwood MC, Lokuge B, Kurahashi A, Tobin A, Isenberg S, et al. Exploring Canadian physicians' experiences providing medical assistance in dying: A qualitative study. *J Pain Symptom Manage*. 2018;**56**(2):222-229 e1. doi: [10.1016/j.jpainsymman.2018.05.006](#). [PubMed: [29775692](#)].
- Aghababaei N, Wasserman JA, Hatami J. Personality factors and attitudes toward euthanasia in Iran: Implications for end-of-life research and practice. *Death Stud*. 2014;**38**(1-5):91-9. doi: [10.1080/07481187.2012.731026](#). [PubMed: [24517707](#)].
- Aghababaei N. Attitudes towards euthanasia in Iran: The role of altruism. *J Med Ethics*. 2014;**40**(3):173-6. doi: [10.1136/medethics-2012-101004](#). [PubMed: [23365467](#)].
- Naseh L, Rafiei H, Heidari M. Nurses' attitudes towards euthanasia: A cross-sectional study in Iran. *Int J Palliat Nurs*. 2015;**21**(1):43-8. doi: [10.12968/ijpn.2015.21.1.43](#). [PubMed: [25615834](#)].
- Alborzi J, Sabeti F, Baraz S, Miladinia M, Seidkhani V, Sharhani A. Investigating of moral distress and attitude to euthanasia in the intensive care unit nurses. *Int J Pediatr Mashhad*. 2018;**6**(11):8475-82. doi: [10.22038/ijp.2018.28177.2439](#).
- Saadat P, Golpour R, Shafaie SF. Attitude of patients towards euthanasia attending neurology clinic: A pilot study in Iran. *J Clin Diagn Res*. 2018;**12**(3). doi: [10.7860/jcdr/2018/28227.11257](#).
- Parker MH, Cartwright CM, Williams GM. Impact of specialty on attitudes of Australian medical practitioners to end-of-life decisions. *Med J Aust*. 2008;**188**(8):450-6. [PubMed: [18429710](#)].
- Gruber PC, Gomersall CD, Joynt GM, Lee A, Tang PY, Young AS, et al. Changes in medical students' attitudes towards end-of-life decisions across different years of medical training. *J Gen Intern Med*. 2008;**23**(10):1608-14. doi: [10.1007/s11606-008-0713-y](#). [PubMed: [18633680](#)]. [PubMed Central: [PMC2533361](#)].
- Ahmed AM, Kheir MM. Attitudes towards euthanasia among final-year Khartoum University medical students. *East Mediterr Health J*. 2006;**12**(3-4):391-7. [PubMed: [17037708](#)].
- Carver CS, Scheier MF. *On the self-regulation of behavior*. Cambridge University Press; 1998. doi: [10.1017/cbo9781139174794](#).
- Sharifi K, Amiri M. Prediction of psychological well-being based on the orientation of life and optimism. *International Conference on Psychology and Culture Life*. 2005. Persian.
- Aghaei MH, Mohajjel Aghdam A, Bodaghi S, Azami Agdash S. [Knowledge and attitude of nurses toward caring for end of life patients]. *Iran J Nurs*. 2017;**30**(107):74-82. Persian. doi: [10.29252/ijn.30.107.74](#).
- Hojjati H, Arazi S, Mozafari N, Ghezelsefeli Z, Akhond Zadeh G, Hekmati Pour N, et al. [Attitude of nurses to end-of-life care in social security hospitals in Golestan province]. *J Educ Ethic Nurs*. 2015;**4**(4). Persian.
- Abu Hasheesh MO, Al-Sayed AboZeid S, Goda El-Zaid S, Alhujailli AD. Nurses' characteristics and their attitudes toward death and caring for dying patients in a public hospital in Jordan. *Health Sci J*. 2013;**7**(4).