

Is attitude towards euthanasia same among medical, nursing, and law students?

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Abstract

Background and objective: Euthanasia is one of the most controversial ethical issues. There is no available data about attitudes towards euthanasia among Iranian society. This research was conducted among medical, nursing, and law students to find out theoretical and practical connection of these fields with euthanasia.

Materials and methods: In this cross-sectional analytical study, attitudes of 243 senior students of medicine, nursing, and law were evaluated between January 2015 and February 2016 by using Euthanasia Attitude Scale (EAS) questionnaire classified in four factors of ethical consideration, practical consideration, treasuring life, and naturalistic beliefs.

Results and conclusion: Mean of attitude towards euthanasia was 44.1 ± 16.2 . Score of 49.3%, 50.6%, and 44.7 % of medical, nursing, and law students was above the mean, respectively. Except for marital status that had a significant association with naturalistic beliefs, there was no significant association between other demographic variables (field of study, age, and gender) and the attitudes towards euthanasia. The results of this study showed a negative attitude of the students towards most aspects of EAS and a relatively negative attitude towards Euthanasia.

Keywords: Attitude, Euthanasia, Ethics, senior student

1. Introduction

With the expertise and medical technology available in today's world, most diseases can be treated, extending human lifespan and creating a number of moral and ethical problems [1,2]. One of the most important topics related to these

problems is that of euthanasia, a subject that has received attention of experts from varied disciplines [2,3].

Physician-assisted suicide (PAS) and euthanasia extermination can be wrangled from moral and lawful viewpoints, and there are assortments of

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opinions with respect to their worthiness and value. Religion is considered a critical calculate in deciding towards such practices [4].

Euthanasia is etymologically derived from two Greek words, “eu” means easy or good, and “thanatos” means death. Thus, the meaning translates to an ‘easy death’ or a ‘good death’ [5]. Euthanasia may be a think purposefulness act attempted with sympathy and committed to finishing a person’s life when they endure from a hopeless sickness [6].

Euthanasia is an attractive issue in the fields of medicine, psychiatry, ethics, sociology, and philosophy [7]. The physicians’ attitude toward euthanasia and its legal requirements, their arguments for its supporting and the conditions which they consider it acceptable are mentioned as the crucial factors in their key role about end-of-life decision-making and performance [8]. On the other hand, closer daily involvement of nurses with patients, the type of care, and services which are provided based on their knowledge, experience, and skills play an important role during the several stages of the euthanasia process. Also, nurses are often the first caregivers who patients are more comfortable to state their euthanasia request which places a huge burden of responsibility on them [9,10]. Euthanasia and certain shapes of helped biting the dust are right now legitimate or decriminalized in fair some nations. Netherland (2001), Belgium (2002), and Luxembourg (2009) have legalized euthanasia [11], and Canada (2016) has introduced a federal law allowing medical aid in dying [12]. In these four nations, euthanasia/assisted passing on is given legitimately to those included after certain strategies including an educated and competent ask. By long standing course of action, Switzerland does not indict those who help a suicide passing, given they do not advantage from the result. IA comparative, later course of action wins in Colombia. Within the Joined together States, a few person states have legalized PAS [13]. The nonappearance of affirmations from other parts of

the word, counting Asia and Africa is striking. In spite of the fact that talks and considers investigating discernments of willful extermination and helped biting, the dusts are rising from these parts of the world [14]. Lawyers and ethicists as members of the ethical committees of each nursing home and hospital have a crucial role in evaluating the euthanasia requests and end-of-life decision-making process.

Despite the differences between their positions in the decision-making and execution process, achieving the right and proper decision in the Federal Evaluation and Control Commission for Euthanasia requires their consultation and collaborations. Physicians perform their roles through curing, caring, and executive role along considering the prospect of the patient in the decision-making process. Although, lawyers focus on the legal and regulatory aspects of medical decisions [8]. Also, Euthanasia is one of the complicated issues which have been highly regarded by physicians, ethicists, philosophers, and religions with various opinions about its eligibility. This controversial issue has supporters and opponents about being a murder or manslaughter in the Islamic criminal law system of Iran. It should be stated that its inactive and involuntary type is performed among brain death patients. Furthermore, unwillingness to start or continue treatment in the untreatable disorders which is one of the types of euthanasia is not impossible in our society. Hence, the attitude of nursing, medical and law students towards euthanasia was studied in order to survey the theoretical and practical relationships between these disciplines in order to help the awareness of their thoughts and inclusion of this topic in the academic course categories. Since the carried-out studies in this field have been limited to a descriptive survey of the attitude of each of these three groups separately, we compared the attitude of the last year students of medicine, nursing, and law toward euthanasia.

2. Materials and methods

This cross-sectional study was performed among medical and nursing students of Guilan University of Medical Sciences (Guilan, Iran) and law students of Guilan University (Guilan, Iran) between January 2015 and February 2016. The individuals were chosen using random selection. Being at the last year of education was considered as the inclusion criteria. From a total of 258 students including medicine (75), nursing (93) and law (90), the data of 243 people with 94% participation rate were collected after referral to the relevant faculties.

The data were gathered using a two-section questionnaire. In the first section, the demographic characteristics such as age, gender, and marital status were asked. The second section contained the Persian version of a four-factor Euthanasia Attitude Scale (EAS) with 20 items. These items were characterized into four factors including ethical consideration (items 1-11), practical consideration (items 12-14), treasuring life (items 15-18), naturalistic belief (items 19 and 20), and answers to the questions were based on a five-point Likert scales including strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree. The scores were from 5+ to 1+ in terms of responses to the items. The maximum score obtained by a sample was 100 and the minimum score was 20. The score of each factor was calculated by obtaining the mean of the total score for its subcategory, so the maximum and minimum score of the first to fourth factor was (55 and 11), (15 and 3), (20 and 4), and (10 and 2), respectively. The score higher than mean indicated a positive attitude toward euthanasia and lower than mean indicated a negative attitude toward euthanasia. The items 2, 4, 7, 9, 14, 15, 17, and 20 were opposite clauses. After obtaining a written permission from the ethics committee of Guilan University of Medical Sciences and entering the research environment from the research deputy and vice-chancellor of the university coordinated with the educational

deputy of Guilan university and department of education of humanities college of the university, the data were collected using a self-report questionnaire that were delivered to the students after their consent participate in the study.

The researchers were present during the completion of the questionnaire and resolved the ambiguity about the concept of euthanasia or mentioned clauses. The minimum and maximum response time to the questionnaire was 2 and 13 min, respectively with an average of 6 min. All study procedures complied with the ethical standards outlined in the Helsinki Declaration (2013). The ethical committee of Guilan University of Medical Sciences approved this study (Code: IR.GUMS.REC.1395.340).

Statistical analysis of the findings was done using SPSS version 20. For this purpose, indicators and statistical methods including abundance, frequency, mean, chi-square, and t-test were used. Significance level was considered as $P \leq 0.05$.

3. Results and discussion

Of the participants in the study, 60.1% (146) were female, 45.3% (110) were under 22 years of age, the others were 23 years old and above, and 84.6% (210) were single. Among medical students who were 30% of the population, 49 (67.1%) were female, 64 (87.7%) were single, and all the participants in this group were 23 years old and above. Among nursing students, 50 (58.8%) were female, 69 (81.2%) were single, and 46 (54.1%) were younger than 22 years old. Among law students, 47 (55.3%) were female, 77 (90.6%) were single, and 64 (75.3%) were under 22 years of age.

Total mean of euthanasia attitude in the population was 44.1 ± 16.2 . Also, 53.5% of the subjects had lower score than mean. Mean score of the medical, the nursing, and the law students was 45.8 ± 18.5 , 44.2 ± 14.7 , and 42.4 ± 15.6 , respectively. In addition, 49.3% of the medical students, 50.6% of the nursing students, and

44.7% of the law students had higher Score than mean. Although, percentage of the nursing students was more favorable, there was no significant difference in comparison of the means (Table 1). Most of the medical students were agree with item 2 (i.e., death for merciful reasons is wrong), and item 10 (i.e., euthanasia is acceptable when all hope of recovery is gone). The greatest agreement of the nursing students was observed for item 18 (i.e., one of the key professional ethics of physicians is to prolong lives, not to end lives). The law students mostly agreed with item 17 (i.e., everybody should sustain the life, not to end it). Moreover, most of the medical students opposed item 4 (i.e., there are never cases when euthanasia is appropriate), and the nursing and the law students opposed item 12 (i.e., euthanasia is acceptable if the person is old) more than the other items.

In terms of gender, there was a significant difference between the medical students. In the first three items, men had higher mean scores for supporting euthanasia, and in the fifth item, women scored a mean score. In item 7, the married students supported the legalization of euthanasia. As all medical students aged 23 years and above, the mean score was not calculated for this group.

Among the nursing students, men in items 1 and 4, and women in item 10 scored more than mean.

Comparison of mean in term of marital status was only significant in item 6 and the married nursing group had a higher mean. Comparison of mean in term of age in the nursing group was significant in item 15 and those who were younger than 22 were more likely to score.

Among the law students, women had a higher score in item 7 and changed the mean score of this item significantly. In item 5, the participants younger than 22 years old gained a higher mean score. Marital status had no significant effect in this group.

Mean scores of item 17 between the medical and the nursing group, items 13 and 11 between the medical and the law group, and items 3 and 17 between the nursing and the law group were different significantly (Table 1). There was a significant difference between the individuals in term of age in items 11 and 15 and in term of gender in items 9 and 4. Marital status had no significant effect. Mean scores of the subjects in comparison of ethical consideration, practical consideration, treasuring life, and naturalistic belief were not significant in term of field of study, gender, and age. Specifically, the single participants showed higher mean score for naturalistic beliefs, which were significantly different ($P = 0.05$) in favor of euthanasia (Table 2-5).

Table 1- Comparison of the means in respondents in term of field of study

Items	Total	Medical students	Nursing students	Law students	P-value
	Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD	
1. A person with a terminal illness has the right to decide to die	3 \pm 1.8	3.1 \pm 1.7	3 \pm 1.9	2.9 \pm 1.9	0.4
2. Inducing death for merciful reasons is wrong	1.7 \pm 1.5	1.9 \pm 1.5	1.6 \pm 1.3	1.7 \pm 1.5	0.2
3. Euthanasia should be accepted in today's Society	2.6 \pm 1.9	2.6 \pm 1.9	2.9 \pm 1.8	2.3 \pm 1.8	0.02
4. There are never cases when euthanasia is appropriate	2.7 \pm 1.9	1.8 \pm 2.8	2.9 \pm 1.9	2.5 \pm 1.9	0.3
5. Euthanasia is helpful at the right time and place (under the right circumstances)	2.9 \pm 1.8	1.9 \pm 2.9	3 \pm 1.8	2.8 \pm 1.7	0.5
6. Euthanasia is a humane act	1.9 \pm 1.8	2 \pm 1.9	1.8 \pm 1.7	1.9 \pm 1.8	0.2

7. Euthanasia should be against the law	2.3±1.9	2.3±1.9	2.3±2.1	2.4±1.8	0.7
8. Euthanasia should only be used when the person has a terminal illness	2.5±1.8	2.6±1.8	2.4±1.9	2.6±1.7	0.9
9. The taking of human life is wrong no matter what the circumstances	2.1±1.8	2±1.9	2.1±1.7	2.1±1.7	0.5
10. Euthanasia is acceptable in cases when all hope of recovery is gone	2.8±1.8	3±1.9	1.7±2.8	2.6±1.8	0.6
11. Euthanasia gives a person a chance to die with dignity	2.2±1.8	2.6±1.8	2.1±1.9	1.9±1.8	0.009
12. Euthanasia is acceptable if the person is old	1.7±1.4	1.7±1.4	1.7±1.3	1.6±1.3	0.4
13. If a terminally ill or injured person is increasingly concerned about the burden that his/her deterioration of health has placed on his/her family, I will support his/her request for euthanasia	2±1.8	2.3±1.7	2±1.8	1.7±1.7	0.003
14. Euthanasia will lead to abuses	1.8±1.7	1.8±1.6	1.9±1.8	1.5±1.4	0.2
15. There are very few cases when euthanasia is acceptable	1.9±1.6	2.1±1.6	2±1.6	1.8±1.7	0.3
16. Euthanasia should be practiced only to eliminate physical pain and not emotional pain	1.8±1.7	1.7±1.6	1.8±1.7	1.9±1.8	0.5
17. One's job is to sustain and preserve life, not to end it	1.7±1.4	1.9±1.5	1.3±1.2	1.9±1.5	0.03
18. One of the key professional ethics of physicians is to prolong lives, not to end lives	3.1±1.9	2.9±1.9	3.3±1.9	3±1.9	0.6
19. A person should not be kept alive by machine	2.1±1.6	2.3±1.6	1.9±1.6	1.9±1.7	0.7
20. Natural death is a cure for suffering	1.5±1.5	1.5±1.7	1.4±1.5	1.7±1.6	0.9

Table 2- Comparison of the means of responses to factors in term of field of study

Factors	Medical students (n=73)	Nursing students (n=85)	Law students (n=75)	P-value
	Mean ±SD	Mean ±SD	Mean ±SD	
Ethical consideration	27.8±13.5	26.9±11.5	25.4±11.7	0.1
Practical consideration	5.7±3.2	5.6±3	4.7±2.9	0.2
Treasuring life	8.5±3.8	8.3±3.2	8.5±3.5	0.5
Naturalistic belief	3.7±2.4	3.2±2.4	3.6±2.5	0.1
Total	45.8±18.5	44.2±14.7	42.4±15.6	0.2

Table 3- Comparison of the means of responses to factors in term of field of study and sex

Factors	Medical students (n=73)		P- value	Nursing students (n=85)		P-value	Law students (n=75)		P- value
	Women (n=49)	Men (n=24)		Women (n=50)	Men (n=35)		Women (n=47)	Men (n=38)	
	Mean ±SD	Mean ±SD	Mean ±SD	Mean ±SD	Mean ±SD	Mean ±SD			
Ethical	26.3±14.1	30.9±11.6	0.1	25±10.7	29.6±12.1	0.2	26.2±12	24.5±11.4	0.4

consideration									
Practical	7.5±3.5	5.7±2.7	0.2	5.3±2.7	6.1±3.3	0.4	4.7±3	4.7±2.8	0.3
consideration									
Treasuring life	4.1±8.6	8.4±3.3	0.1	8.1±3.4	8.8±2.9	0.1	8.2±3.5	9±3.6	0.1
Naturalistic									
belief	3.8±2.4	3.6±2.4	0.1	3.3±2.4	3.2±2.6	0.2	3.5±2.4	3.7±2.7	0.2
Total	44.5±20	48.7±15	0.3	1.7±13.8	47.8±15.4	0.05	16.4±2.4	14.7±2.4	0.8

Table 4- Comparison of the means of responses to factors in term of field of study and age

Factors	Nursing students (n=85)		P- value	Law students (n=75)		P- value
	22 > (n=46)	≥ 23 (n=39)		22 > (n=64)	≥ 23 (n=21)	
	Mean ±SD	Mean ±SD	Mean ±SD	Mean ±SD		
Ethical consideration	26.7±11.8	27±11	0.1	25.9±12.3	24.1±9.8	0.1
Practical consideration	5.8±2.7	5.3±3.3	0.2	4.8±3	4.4±2.6	0.3
Treasuring life	8.3±3.1	8.4±3.4	0.1	8.6±3.8	4.8±2.6	0.2
Naturalistic belief	3±2.5	3.5±2.4	0.1	3.8±2.6	2.9±1.9	0.1
Total	44.1±14.3	44.4±15.4	0.9	44.3±16.4	39.9±12.9	0.3

*All medical students were 23 years of age and older.

Table 5- Comparison of the means of responses to factors in term of field of study and marital status

Factors	Medical students (n=73)		P- value	Nursing students (n=85)		P- value	Low students (n=75)		P- value
	Single (n=64)	Married (n=9)		Single (n=69)	Married (n=16)		Single (n=77)	Married (n=8)	
	Mean ±SD	Mean ±SD	Mean ±SD	Mean ±SD	Mean ±SD	Mean ±SD			
Ethical consideration	27.5±13.2	29.9±15.4	0.1	26.6±11.6	27.6±11.1	0.1	25.7±11.7	23.5±12.2	0.1
Practical									
consideration	5.7±3.3	6.2±2.9	0.2	5.5±3	6.1±3	0.1	4.6±3	5.1±1.8	0.2
Treasuring life	8.4±3.9	9.3±3	0.1	8.3±3.2	8.6±3.5	0.5	8.6±3.6	8±2.4	0.7
Naturalistic belief	3.7±2.4	4±2.3	0.1	3.4±2.5	2.3±1.9	0.2	3.7±2.5	2.3±1.9	0.2
Total	45.4±18.1	49.1±22.3	0.5	44.1±15	44.8±13.6	0.8	42.8±15.9	38.8±11.7	0.4

To the best of our knowledge, this is the first study that compared attitudes with respect to the issue of euthanasia between medical, nursing, and law students in Iran. According to the results, the attendants opposed euthanasia generally. With a very few differences, mean score of attitudes in the medical students was higher than the others followed by the nursing group. The nursing students supported the legality of euthanasia more than two other groups. Although, the outcome of this study had not a wide acceptance of euthanasia, it was similar to research of Rolands et al. in 2012 in which attitudes toward euthanasia in medical, law, and philosophy students were studied in a university in Belgium. In their study, there was no significant difference between the students

with different discipline. Almost all the students (96%) agreed with existence of a law on euthanasia in Belgium that would be explained by different cultural and religious beliefs between Belgium and Iran [8]. Study of Altay et al. in Sudan showed that 79% of participants opposed euthanasia. Also, 35.7% of respondents believed that opposing or supporting euthanasia is related to religious beliefs, and the role of law in legislation of euthanasia. In addition, it is the individual right to decide to live with severe disease or not [15].

In the same way, Radulovic and Mojsilovic in Serbia studied attitudes and opinions of two groups of physicians, medical students, and lawyers about euthanasia. More than half of the individuals (57%) were against euthanasia, and

61% were against legalization of euthanasia. Views of doctors and medical students were similar (2/3 against), and were significantly different from view of lawyers (2/3 for, $P < 0.01$). Legalization of euthanasia was favored by 61% of lawyers, in compared to 43%, 30%, and 23% of oncologists, family doctors, and medical students, respectively [16]. However, Ryyanen et al. carried out a study on 814 physicians (506 responded, 62%), 800 nurses (582 responded, 68%), and 1000 representatives of general public (587 responded, 59%) in Finland. In their study, 34% of physicians, 46% of nurses, and 50% of general public believed that euthanasia would be acceptable in some situations [17]. In study of Vakili et al., there was no significant difference in attitudes based on field of education (physician and nurse) [18]. Their results showed that most of subjects (60.9%) had opposed attitude for euthanasia. In agreement, Aghababaei reported that 55.6% of students of humanities, basic sciences, medicine, art, and technology in Tehran University (Iran) were disagree with euthanasia [19].

The results of this study showed that rate of agreement with euthanasia when role of patient is emphasized in decision-making is higher than when role/intention of agent is highlighted. Comparison of items 1 and 11 showed that agreement with euthanasia increases parallel to considering the patients' autonomy rather than determination of human dignity intentionally by the healthcare services. In comparison, small percentage of participants in study of Koc said that this decision should be taken by the patient himself, and about half of them did not accept euthanasia under any circumstances. The participants stated that patients might have pivotal role by themselves if they suffer from an untreated disease [20]. In study of Mogadasian et al., such responsibility lies with another person such as a physician [21]. In study of Araden et al. in Turkey, 77% of physicians stated that everyone

has right to decide on their life [22].

In our study, the medical students supported euthanasia more than two other groups; although they were worried about pressure from the families. More than 50% of all students disagreed with euthanasia due to aging. In agreement, Aghababaei observed 71% opposition in his study [19]. Approximately, 50% of the medical and the nursing students and 60% of the law students stated the possibility of abused euthanasia. It was 63.6% in study of Aghababaei [19]. Similar results were observed in study of Mogadasian [21].

In study of Kamath et al., treatment for euthanasia was one of the most important reasons for disagreement of physician with euthanasia [1]. However, in study of Roelands et al., half of lawyers believed that use of euthanasia is controllable. Also, lawyers thought that euthanasia was quite recognizable from ordinary death. Interestingly, 71% of total respondents opposed to this idea [8].

Moreover, our participants in all three disciplines opposed euthanasia to reduce physical pain. In study of Zarghami et al., half of interns and residents believed that euthanasia is not requested by the patient when there is no intolerable pain. Approximately, 71% believed that healthcare services could prevent euthanasia, and 73% believed that depression and frustration in patients were the reason to request euthanasia [23]. It is in spite of study of Roelands et al. who said that euthanasia should be done to rescue a person from suffering. In addition, family physicians stated that unexpressed and unbearable pain is one of the most important causes of euthanasia [8]. In another study, the strongest reason for euthanasia by physicians was reduction of pain in patients with autistic disease, and their belief to be more humane than prolonging life expectancy with great pain and suffering [1].

Karadeniz et al. reported a lack of improvement as one of the most effective subtypes in

euthanasia [22]. Eighth item of EAS, which represents this subscale, was agreed among the nursing students in our study. The four factors of EAS were not statistically significant in term of field of study, age, and gender. Same result was reported in study of Aghababaei [19] and Naseh et al. [24].

Our study included some limitations. In this regard, level of knowledge and awareness of people of euthanasia was not asked, type of euthanasia was not mentioned, and just four variables of field of study, age, gender, and marital status were investigated.

4. Conclusion

The results of this study showed a negative attitude of the students toward most aspects of EAS and a relatively negative attitude toward Euthanasia. Investigation of individuals' attitude in both legal and illegal ways of euthanasia, different types of euthanasia, and benefits and disadvantages of inactive euthanasia in patients with brain death is recommended for further studies. Considering other variables including attitudes towards death, personality, sudden death or chronic non-proliferative disease or cancer in one of family members, a close friend, and relatives is also suggested.

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6. Conflict of interest

The authors declare that there is no conflict of interest.

References

1. Kamath S, Bhate P, Mathew G, Sashidharan S, Daniel AB. Attitudes toward euthanasia among doctors in a tertiary care hospital in South India: a cross sectional study. *Indian Journal of Palliative*

Care. 2011; 17(3): 197-201.

<https://doi.org/10.4103/0973-1075.92336>

2. Aghababaei N. Attitudes towards euthanasia in Iran: the role of altruism. *Journal of Medical Ethics*. 2014; 40(3): 173-176.

<https://doi.org/10.1136/medethics-2012-101004>

3. Mousavi SM, Akbari A, Lotfi Kashani F, Akbari ME, Sepas HN. Euthanasia in cancer patients, Islamic point of view. *Iranian Journal of Cancer Prevention*. 2011; 14(2): 78-81.

4. Rathor MY, Abdul Rani MF, Shahar MA, Jamalludin AR, Bin Che Abdullah ST, Bin Omar AM et al. Attitudes toward euthanasia and related issues among physicians and patients in a multi-cultural society of Malaysia. *Journal of Family Medicine and Primary Care*. 2014; 3: 230-237.

<https://doi.org/10.4103/2249-4863.141616>

5. Avci E. Does palliative sedation produce an ethical resolution to avoid the demand for euthanasia in a Muslim country? *Indian Journal of Palliative Care*. 2018; 24: 537-544.

https://doi.org/10.4103/IJPC.IJPC_105_18

6. Chamsi-Pasha H, Albar MA. Islamic medical jurisprudence syllabus: a review in Saudi Arabia. *Medical Journal of Malaysia*. 2017; 72: 278-281.

7. Grassi L, Magnani K, Ercolani M. Attitudes toward euthanasia and physician-assisted suicide among Italian primary care physicians. *Journal of Pain and Symptom Management*. 1999; 17: 188-196.

8. Roelands M, Van DenBlock L, Geurts S, Deliens L, Cohen J. Attitudes of Belgian students of medicine, philosophy, and law toward euthanasia and the conditions for its acceptance. *Death Studies*. 2015; 39(3): 139-150.

<https://doi.org/10.1080/07481187.2014.920433>

9. Van Bruchem-van de Scheur GG, van der Arend AJ, Huijjer Abu-Saad H, Van Wijmen FCB, Spreeuwenberg C, Ter Meulen RHJ. Euthanasia and assisted suicide in Dutch hospitals: the role of nurses. *Journal of Clinical Nursing*. 2008; 17: 1618-1626.

<https://doi.org/10.1111/j.1365-2702.2007.02145.x>

10. De Beer T, Gastmans C, De Casterle BD. Involvement of nurses in euthanasia: a review of the Literature. *Journal of Medical Ethics*. 2004; 30: 494-498.

<https://doi.org/10.1136/jme.2003.004028>

11. Cohen J, Van Landeghem P, Carpentier N, Deliens L. Public acceptance of euthanasia in Europe: A survey study in 47 countries. *International Journal of Public Health*. 2014; 59(1): 143-156. <https://doi.org/10.1007/s00038-013-0461-6>
12. Chochinov HM, Frazee C. Finding a balance: Canada's law on medical assistance in dying. *The Lancet*. 2016; 388(10044): 543-545. [https://doi.org/10.1016/S0140-6736\(16\)31254-5](https://doi.org/10.1016/S0140-6736(16)31254-5)
13. Varadarajan R, Freeman RA, Parmar JR. Aid-in-dying practice in the United States legal and ethical perspectives for pharmacy. *Research in Social and Administrative Pharmacy*. 2016; 12(4): e17. <https://doi.org/10.1016/j.sapharm.2016.05.040>
14. Saadery BS. Euthanasia in Iranian and Egyptian law. *European Scientific Journal*. 2014; 2: 203-207.
15. Altay E, Amir A, Badri A, Altayeb S, Ahmed A. Attitude towards euthanasia among final year psychology students. *Sudanese Journal of Public Health*. 2010; 5(3):139-144.
16. Radulovic S, Mojsilovic S. Attitudes of oncologists, family doctors, medical students and lawyers to euthanasia. *Supportive Care in Cancer*. 1998; 6: 410-415.
17. Rynnanen OP, Myllykangas M, Viren M, Heino H. Attitudes towards euthanasia among physicians, nurses and the general public in Finland. *Public Health*. 2002; 116: 322-331. <https://doi.org/10.1038/sj.ph.1900875>
18. Vakili M, Delavar S, Fotuhi E. Survey of the attitudes of nurses and physicians in the intensive care units about euthanasia in the university hospitals of Yazd-2012. *Community Health Journal*. 2014; 7: 1-9.
19. Aghababaei N. Assessing attitudes toward euthanasia. *Iranian Journal of Medical Ethics and History of Medicine*. 2011; 5 (1): 59-70.
20. Aysegul Koc PHD R. Nursing students' attitudes towards euthanasia: a study in Yozgat, Turkey. *International Journal of Caring Sciences*. 2012; 5(1): 66-73.
21. Mogadasian S, Abdollahzadeh F, Rahmani A, Ferguson C, Pakanzad F, Pakpour V, et al. The attitude of Iranian nurses about do not resuscitate orders. *Indian Journal of Palliative Care*. 2014; 20: 21-25. <https://doi.org/10.4103/0973-1075.125550>
22. Karadeniz G, Yanikkerem E, Pirincci E, Erdem R, Esen A, itapcioglu G. Turkish health professional's attitude toward euthanasia. *Omega*. 2008; 57: 93-112. <https://doi.org/10.2190/OM.57.1.e>
23. Zarghami M, Valaie N, Sartakhti AA, Mehraban M, Mahmoudi R, Fatemeh Sheikh Moonesi. Attitudes of Iranian interns and residents towards euthanasia. *World Applied Sciences Journal*. 2010; 8(4): 486-489.
24. Naseh L, Sheykhi R, Rafiei R, Jafari H. Survey of final years nursing students' attitude regards euthanasia in 2013. *Journal of Education and Ethics in Nursing*. 2014; 3(1): 49-55.