



## **Attitudes Study of Students and Staff of Nursing about Euthanasia in Behbahan City, 2018**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. Author AR designed the study, wrote the protocol and wrote the first draft of the manuscript. Author SK edited the manuscript and performed the statistical analysis. Author SN and FH managed the analyses of the study and performed the sampling. Author FA managed the literature searches and performed the sampling. Author NM and ZJ managed of the study edited the manuscript and wrote the manuscript. Author LAM designed the study, wrote the protocol and performed the sampling. Author AK wrote and edited the manuscript. All authors read and approved the final manuscript.*

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### **ABSTRACT**

**Introduction:** Nursing students are part of a clinical teaching team in the course of education. And it is important to examine their attitude toward euthanasia. Investigating the attitude of nursing students towards euthanasia has always been welcomed by researchers. These studies often indicate a lack of acceptance of euthanasia among nurses, but different percentages of opposition

to euthanasia have been reported. This study aimed to determine the attitudes study of students and staff of nursing about euthanasia in Behbahan city in 2018.

**Materials and Methods:** This descriptive-analytical study was conducted to investigate the euthanasia attitude among nursing staff and students in 2018. The study population is nurses and nursing students of Behbahan city. Population volume was 187 in Behbahan hospital staff and 117 students respectively, that with Cochran's formula with 95% confidence interval was 126 and 83 respectively ( $z$ : equal 1.96  $p=q=0.5$   $d=0.5$ ). Students were selected from semesters 4 to 8 in order to understand students correctly. Data were analyzed by SPSS software version 22 and statistical methods including: mean, frequency, T-test, Chi-Square, multiple regression test and significance level  $p < 0.05$  was used.

**Results:** 107 nurses and 83 nursing students participated in this study. The mean age of participants was 27 years. Multiple regression was used to examine the relationship between the dimensions of euthanasia and demographic variables. Multiple regression results showed that naturalistic beliefs were significantly different between the two groups of nurses and students ( $p$ -value = 0.021). There was no significant difference between other aspects of euthanasia attitude in nurses and students. There were also significant differences between the two groups of men in terms of practical considerations ( $p$ -value=0.048).

**Conclusion:** Knowing the attitudes of nurses in a community towards the issue of euthanasia can be an effective step towards a better plan for improving the care of patients with euthanasia. The results of this study showed that naturalistic beliefs were significantly different between the two groups of nurses and students. But there was no significant difference between other aspects of euthanasia attitude and nurses and students; There were also significant differences in the practical considerations between the two groups of men. It is necessary to improve the knowledge of nurses in this field.

*Keywords: Euthanasia; students' attitude; nursing; nursing students.*

## 1. INTRODUCTION

In recent decades, many patients have died from cardiovascular disease, accidents and malignancies. Although new therapies partially extend the life span of these patients, but the nature of these diseases is such that they bring many disabilities to patients and clearly decrease their quality of life. Many of these patients endure a great deal of suffering without any hope of recovery and their lives may be very costly for themselves, their families and the health system. Therefore, in recent decades, there has been a renewed debate about euthanasia. In particular, by reinforcing the principle of autonomy or autoimmunity in modern medical ethics, considering the patients' wishes in such cases it seems worth considering [1]. Pharmacists are in a critical position when pharmaceutical agents are prescribed for the purpose of physician-assisted suicide and/or euthanasia and they may need to decide whether dispensing a lethal dose of a medication is ethically and morally acceptable for a patient [2].

Euthanasia is a Greek word meaning good death. But euthanasia is any measure that deliberately aims to reduce or aggravate patients' suffering or accelerate their death [3]. Some of

the terms used in euthanasia are: voluntary and non-voluntary active euthanasia and voluntary and non-voluntary passive euthanasia. Voluntary active euthanasia means that every person with the determination to make the decision to end their life with the intervention of a medical team. In other words, voluntary active euthanasia has two important conditions, one being the patient's decision, and the other being an unbearable illness or suffering that does not hope for recovery [4]. Voluntary inactivation euthanasia means that every person has the capacity to make the decision to end their life by discontinuing vital maintenance treatments. In other words, voluntary inactivated euthanasia means that patients do not accept treatment to accelerate death [5]. According to Naafs, [6], a physician involves a pharmacist in a merciful killing by asking him to dispense drugs to perform euthanasia.

Non-voluntary active euthanasia means that the treatment team is asked to end the life of an individual with no decision-making capacity. In other words, voluntary active euthanasia involves deliberate injections and deaths for patients who are not competent to make decisions, this decision is usually made by the medical team. This is an involuntary inactivation of Etheareal that

calls for the termination of one's femininity without the decision-making capacity of the alternate team to discontinue critical maintenance therapy [4,5].

Ending patients' suffering in collaboration with the treatment group has been widely discussed. One group strongly opposes rational, cultural, religious, and professional reasoning and advocates against a limited group [7]. On the other hand, the approach of nations and countries in the world is also different from that of euthanasia in terms of their social structure over time. In the Netherlands, assisting in the death of a patient is accepted by the health department as a custom, and the government has enacted rules to regulate this practice. In Spain, the practice of euthanasia is banned and punishable by jail terms for doctors and nurses [8].

There are numerous challenges to euthanasia and various researchers have studied it from different angles. Part of these researches have been in the field of medical team. This study suggests that euthanasia and its acceptance are strongly influenced by the attitudes and attitudes of the medical team towards the issue of life and death [3]. The results of previous researches in Iran on euthanasia show that there is no collective agreement on euthanasia [9]. Research by Mahmoud Vakili et al. in Yazd (2013) showed that most physicians and nurses in the intensive care units have a negative attitude towards euthanasia [10]. A study by Laden Naseh et al in Shahrekord [11], showed that most nursing interns disagree with euthanasia [11]. But in other research in 2009, among medical students in Qom shows that 50% of students have a positive attitude toward euthanasia [12].

Nursing students are part of a clinical team member of the treatment team during their education and it is important to examine their attitudes about euthanasia. During their education, they encounter numerous cases of cured patients with no hope of treatment. And to see the overwhelming suffering of these patients is very difficult and really painful. Evidence from nurses' experiences with euthanasia in countries outside of Canada suggests that this can be a rewarding, albeit morally complex, ambiguous and emotionally laden experience [13]. A recent publication detailing nurses' involvement with euthanasia in the first 6 months of its implementation in the Canadian context offered similar findings [14]. In light of the moral and ethical complexity of this act, a number of

authors have encouraged nurses to engage in discussions around euthanasia [15,16,17]. However, they are acquainted with the relevant challenges as they pass theoretical courses in professional ethics. But their research on euthanasia has always been welcomed by researchers. Compared to physicians, nurses are considered to be more involved with the end-of-life care of patients, due to their greater bedside attendance and frequent confrontation of patients' suffering [18,19,20,21,22]. These suggestions often indicate a lack of acceptance of euthanasia among nurses, but the percentage of opposition to euthanasia has been expressed in different numbers [23]. Perhaps one of the reasons for the difference is the use of different tools and how to complete the questionnaire. However, examining the accuracy and monitoring of how to complete the questionnaire and explain some of the questions to the peer-to-peer sample can lead to better and more appropriate results from the samples. For this reason, the present study was conducted to determine the attitudes study of students and staff of nursing about euthanasia in Behbahan city in 2018.

## 2. MATERIALS AND METHODS

This descriptive-analytical study was conducted to investigate the euthanasia attitude among nursing staff and students in 2018. The study population is nurses and nursing students of Behbahan city. Population sample was 187 in Behbahan hospital staff and 117 students respectively, that with Cochran's formula with 95% confidence interval was 126 and 83 respectively ( $z$ : equal 1.96  $p=q=0.5$   $d=0.5$ ). Students were selected from semesters 4 to 8 in order to understand students correctly.

After obtaining authorization from Student Research Committee of Behbahan University of Medical Sciences with Code of Ethics IR.BHN.REC.1397.023, Questionnaires were selected by systematic random sampling method. If one person did not want to, another would be replaced. After the Written consent was obtained from the respondents and assurance of the confidentiality of the questionnaire information, 209 questionnaires were distributed and 90% of the participants answered (190 persons). The tools of this research were demographic information in the first part including: sex, age, education (diploma, bachelor, senior, doctor), experience working in the intensive care unit, history of having a patient with untreatable disease, also a semester for

staff and students. Euthanasia Attitude Scale (EAS) was used to compare attitudes of students and nurses in the hospital [24].

Its Validity and Reliability in the Hong Kong study (Cronbach's  $\alpha = .79-.92$ ) [25], and in Iran, it was calculated by the Aghababaei (Cronbach's  $\alpha = .85$ ) [26], which is acceptable. The EAS questionnaire consisted of 21 items in 4 areas (ethical considerations, practical considerations, appreciation of life, naturalistic beliefs), that in Persian version done by Aghababaei contains 20 items and on a 5-degree scale from totally opposite to completely agree and it covers grades 1-5 and higher scores indicate a more positive attitude toward euthanasia.

And finally, data were analyzed by SPSS software version 22 and statistical methods including: mean, frequency, T-test, Chi-Square, multiple regression test and significance level  $p < 0.05$  was used.

### 3. RESULTS

107 nurses and 83 nursing students participated in this study. The mean age of participants was 27 years. The demographic information of the samples studied, given in Table 1.

Chi-square test results showed that there was a significant difference between the two groups of nurses and students in terms of gender.

Most of the participants in this study were women nurses, while participants in the student group did not differ significantly by gender. There was no significant difference between the two groups of nurses and students regarding the experience of working in the special ward as well as the history of untreatable illness in the family ( $p\text{-value} > 0.05$ ).

The average attitudes of students and nurses in the four domains of euthanasia are given

in Table 2. The mean attitude of students in the field of euthanasia is similar to that of nurses. Also Fig. 1, compares the attitude of nurses and nursing students towards euthanasia.

Multiple regressions was used to examine the relationship between the dimensions of euthanasia and demographic variables. The results are given in Table 3. Multiple regression results showed that naturalistic beliefs were significantly different between the two groups of nurses and students ( $p\text{-value} = 0.021$ ). There was no significant difference between other aspects of euthanasia attitude in nurses and students. There were also significant differences between the two groups of men in terms of practical considerations ( $p\text{-value}=0.048$ ).

### 4. DISCUSSION

This study aimed to determine the attitudes study of students and staff of nursing about euthanasia in Behbahan city in 2018.

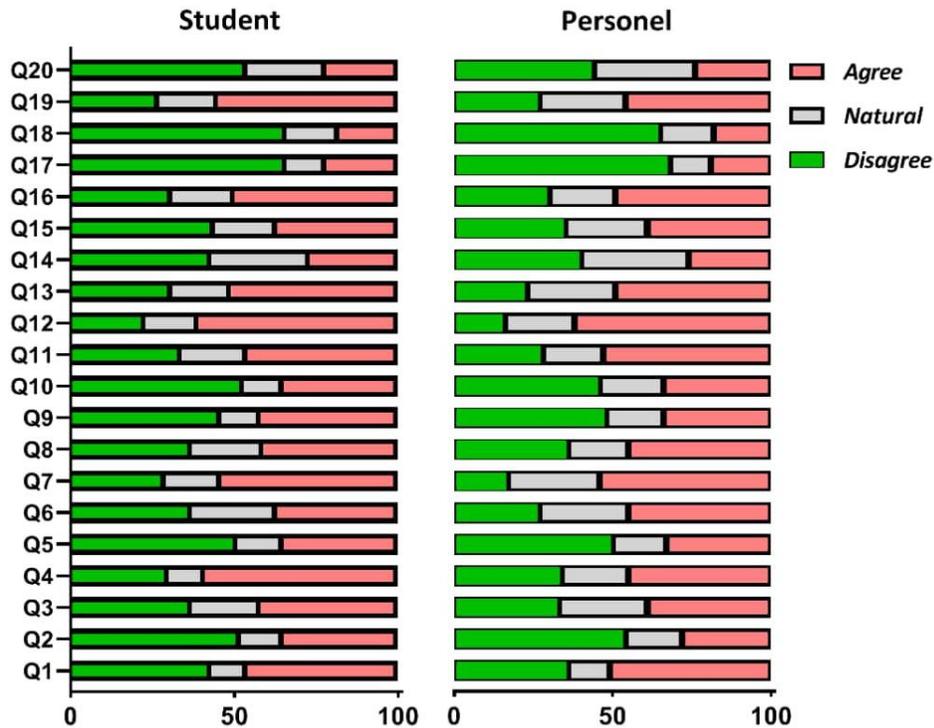
In this study, the mean attitude of students ( $63.14 \pm 71.42$ ) in euthanasia was similar to that of nurses ( $63.12 \pm 18.48$ ). Also, chi-square test results showed that there is a significant difference between the two groups of nurses and students in terms of gender. Most of the participants in this study were women nurses, there was no significant difference between the participants in the gender group. There was no significant difference between the two groups of nurses and students regarding the experience of working in the special ward as well as the history of untreatable illness in the family. In a study conducted to examine the attitudes of Muslim physicians towards euthanasia, 85% of the physicians who participated in the study had a negative attitude toward the problem of euthanasia [27].

**Table 1. Demographic information of participants**

Variable	p-value	Student	Nurse
Gender	<0/001		
Female		37(44/6)	78 (72/9)
Man		46(55/4)	29(27/1)
Experience working in the intensive care unit has it	0/117	11(13/3)	7(6/5)
does not have		72(86/7)	100(93/5)
History of incurable disease in family has it	0/560	6(7/2)	5(4/7)
does not have		77(92/8)	102(95/3)
Age	<0/001	23/18 $\pm$ 3/01	30/78 $\pm$ 8/54
Total number		78 (43/7)	107(56/3)

**Table 2. Average attitudes of participants in four domains of euthanasia**

Variable	Student	Nurse
Attitude to euthanasia	63/71±14/42	63/18±12/48
Ethical considerations	33/22 ± 11/52	34/06 ± 10/33
Practical considerations	10/42 ± 2/84	10/43 ± 2/44
Importance to life	12/29 ± 1/68	12/14 ± 1/69
Naturalistic beliefs	6/93 ± 1/56	6/50 ± 1/57



**Fig. 1. Comparing nurses and nursing students' attitude toward Euthanasia**

**Table 3. Multiple regression results**

Variable	p-value	Test statistics	Scale error	Regression coefficient
<b>Attitude to euthanasia</b>				
group	0/931	-0/086	2/32	-0/20
Gender	0/998	-0/003	2/80	-0/01
<b>Practical considerations</b>				
group	0/499	-0/68	0/45	-0/31
Gender	0/048	-1/99	0/41	-0/81
<b>Importance to life</b>				
group	0/685	0/41	0/29	0/12
Gender	0/442	0/77	0/27	0/21
<b>Naturalistic beliefs</b>				
group	0/021	2/32	0/27	0/63
Gender	0/586	-0/55	0/24	-0/13

Similar results were found in another study by Pakistani doctors, in this study, only 15.3% of physicians agreed with euthanasia [28]. Also the result of a study that was done in 2006 and had

studied the attitude of senior medical students at Khartoum University of Sudan towards euthanasia, 76 percent were opposed to euthanasia [29]. In a study in Hungary quoted by

Tavoosiyan, et al. 60 percent of medical students in this study had expressed their opposition to euthanasia [30].

Results of one study showed that 63.9% and 58.8% of participants were against active and passive euthanasia, respectively. Opposition to active euthanasia was higher than inactivation. The gender and age of the participants had no relationship with euthanasia acceptance and attitude. Among religious and personality variables, only religious variables had a negative relationship with attitudes toward euthanasia. And the pattern of judging the euthanasia opponents and supporters was not much different. Also, according to the findings of this study, most Iranian students are against euthanasia and their opposition to active euthanasia is more than passive euthanasia. The role of religiosity in opposing euthanasia is not influenced by personality factors. The findings of this study, while highlighting the difference between active and passive euthanasia, provided weak support for the slippery slope argument [31].

The scope and roles of pharmacists, has been changing and developing rapidly [32,33,34,35]. Practicing patient-focused care aimed at lawfully assisting individuals to accomplish their own death has expanded to include a number of international jurisdictions [36,37]. According to Rupp and Isenhower [38] the Washington State Society of Hospital Pharmacists stated that "pharmacy professionals, in providing pharmaceutical care, stand for healing and compassionate care, not assisted suicide or euthanasia" [39].

Also in the study of Tavoosiyan, et al. [30] Overall, 54% of interns in Tehran University of Medical Sciences were against euthanasia. However, the response rate to voluntary active euthanasia was 88%, voluntary active euthanasia 47%, voluntary inactive euthanasia 18%, and involuntary inactive euthanasia 95%. This attitude was not related to the age and gender of the interns in the study. In addition, increasing the number of patients in their late stages of life by the interns of Tehran University of Medical Sciences had a positive relationship with their attitudes toward euthanasia, in this study, the effect of various factors on attitudes toward euthanasia was similar to some studies and in contrast to other studies [30]. Physicians are regularly confronted with pharmacists who refuse to provide euthanasia drugs. They do not

always understand that the provision of euthanasia drugs is not a normal professional activity for pharmacists [40].

And in another study, a total of 34.2%, 41.6%, and 24% of students reported negative, neutral, and positive attitudes toward euthanasia, respectively. The majority of students with clinical experience and 38.5% of students with no clinical experience agreed with active euthanasia. Also this study also showed there are a number of misconceptions among Iranian Muslim nursing students about the definition of euthanasia. However, most students show a positive attitude toward euthanasia in accordance with their clinical experience [41].

Also in a study to determine the attitude of Finnish nurses to their role in the euthanasia process, the majority (85.2%) of nurses felt that their views on euthanasia should be taken into account. In addition, the majority of participants (74.7%) were eager to participate in the process of euthanasia, of course, if it's legal. Age, religiosity, and education level of nurses influenced their attitudes in the present results [42].

Also, in one study out of 4 types of euthanasia, only voluntary passive euthanasia was approved by patients. In this study 69.5% of patients agreed with this type of euthanasia and the rate of disagreement was 18.1%. However, other types of euthanasia were clearly opposed by patients. Among the variables studied (age, sex, inpatient ward, religion, and educational level), only the inpatient ward had a significant relationship with patients' attitude toward euthanasia. The results show that patients in the internal ward agree with euthanasia more than patients admitted to the surgical ward. This can be due to the time of illness and the prolongation of illnesses in the internal ward compared to the surgical ward. The chronic nature of internal diseases and the greater involvement of the patient with his illness can affect his attitude toward the euthanasia problem, which is consistent with similar studies [43].

## 5. CONCLUSION

Knowing the attitudes of nurses in a community towards the issue of euthanasia can be an effective step towards a better plan for improving the care of patients with euthanasia. The results of this study showed that naturalistic beliefs were significantly different between the two groups of

nurses and students. But there was no significant difference between other aspects of euthanasia attitude and nurses and students; There were also significant differences in the practical considerations between the two groups of men. This study was conducted with a small sample size, which is one of the limitations of the study. Therefore, this issue needs to be attention in future studies. Also, it is necessary to improve the knowledge of nurses in this field.

## CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

## ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Naseh L, Heidari M. The attitudes of nursing students to euthanasia. *Indian J Med Ethics*. 2017;2(1):NS:20-4.
2. Schneiderhan ME. Physician-assisted suicide and euthanasia: the pharmacist's perspective. *OMEGA-Journal of Death and Dying*. 2000;40(1):89-99.
3. Lee CH, Duck IM, Sibley CG. Demographic and psychological correlates of New Zealanders support for euthanasia. *N Z Med J*. 2017;130(1448):9-17.
4. Koopman JJ, Putter H. Regional variation in the practice of euthanasia and physician-assisted suicide in the Netherlands. *Neth J Med*. 2016;74(9):387-394.
5. Hosseinzadeh K, Moradi M. Nursing ethics and professional communication. Qazvin: Minoodar publication; 2016. [Persian].
6. Naafs NJ. Pharmaceutical care until the end: The role of pharmacists in euthanasia in the Netherlands. *Pharmacy World and Science*. 2001;23(4):129-131.
7. Zarghami M, Valaie N, Sartakhti AA, Mehraban M, Mahmoudi R, Moonesi FS. Attitudes of Iranian interns and residents towards euthanasia. *World Appl Sci J*. 2010;8(4):486-9.
8. Van Wijmen MP, Rurup ML, Pasman HRW, Kaspers PJ, Onwuteaka-Philipsen BD. Advance directives in the Netherlands: An empirical contribution to the exploration of a cross-cultural perspective on advance directives. *Bioeth*. 2010;24(3):118-26.
9. Berghs M, De Casterlé BD, Gastmans C. The complexity of nurses' attitudes toward euthanasia: A review of the literature. *J Med Ethics*. 2005;31(8):441-6.
10. Vakili M, Karimian Kez, Delawar S. Evaluation of Nurses 'and Physicians' Attitudes toward euthanasia in specialty hospitals of Shahid Sadoughi University of Medical Sciences. 2013;3(8):21-29.
11. Naseh I. The study of euthanasia acceptance and attitude towards it in nursing students of Shahrekord University of Medical Sciences. 2012;3(6):22-28.
12. Heidari AK, Heidarpoor A, Raiesi M, Afrakhteh Z, Ahmari Tehran H. Medical students' attitude towards Euthanasia in Qom in 2009. *Qom Univ Med Sci J*. 2011; 5(3):61-5.
13. De Bal N, Gastmans C, Dierckx de Casterle B. Nurses' involvement in the care of patients requesting euthanasia: A review of the literature. *Int J Nurs Stud*. 2008;45:626-644.
14. Beuthin R, Bruce A, Scaia M. Medical assistance in dying (MAiD): Canadian nurses' experiences. *Nurs Forum*. 2018; 53(4):511-520.
15. Storch JL. Planned assisted suicide. *Nurs Ethics*. 2011;18(6):753-755.
16. Scanlon C. Assisted suicide: How should nurses respond? In: ICN 21st quadrennial congress, Vancouver, BC, Canada. Geneva: ICN; 1997.
17. Pesut B, Greig M, Thorne S, Storch J, Burgess M, Tishelman C, Janke R. Nursing and euthanasia: A narrative review of the nursing ethics literature. *Nursing Ethics*. 2019. DOI: 10.1177/0969733019845127.
18. Terkamo-Moisio A, Kvist T, Kangasniemi M, Laitila T, Rynnänen OP, Pietilä AM.

- Nurses' attitudes towards euthanasia in conflict with professional ethical guidelines. *Nursing Ethics*. 2017;24(1):70-86.
19. Kranidiotis G, Ropa J, Mprianas J, et al. Attitudes towards euthanasia among Greek intensive care unit physicians and nurses. *Heart Lung*. 2015;44:260–263.
  20. Dierckx de Casterle B, Denier Y, De Bal N, et al. Nursing care for patients requesting euthanasia in general hospitals in Flanders, Belgium. *J Adv Nurs*. 2010;66:2410–2420.
  21. Inghelbrecht E, Bilsen J, Mortier F, et al. The role of nurses in physician-assisted deaths in Belgium. *CMAJ*. 2010;182:905–910.
  22. Gielen J, Van den Branden S, Van Iersel T, et al. The diverse influence of religion and world view on palliative-care nurses' attitudes towards euthanasia. *J Empir Theolog*. 2011;24:36–56.
  23. Naseh L, Rafiei H, Heidari M. Nurses' attitudes towards euthanasia: a cross-sectional study in Iran. *Int J Palliat Nurs*. 2015;21(1):43-48.
  24. Tordella MA, Neutens JJ. An instrument to appraise attitudes of college students toward euthanasia. *J Sch Health*. 1979;49(6):351–2.
  25. Tang WK, Mak KK, Kam PMH, Ho JWK, Chan DCY, Suen TL, et al. Reliability and validity of the Euthanasia Attitude Scale (EAS) for Hong Kong medical doctors. *Am J Hosp Palliat Med*. 2010;27(5):320–4.
  26. Aghababaei N. Assessing attitudes toward euthanasia. *Iran J Med Ethics Hist Med*. 2011;5(1):59–70
  27. Ahmed AM, Kheir MM, Abdel Rahman A, Ahmed NH, Abdalla Me. Attitudes towards euthanasia and assisted suicide among Sudanese doctors. *EMHJ -Eastern Mediterranean Health Journal*. 2001;7(3): 551-555.
  28. Abbas SQ, Abbas Z, Macaden S. Attitudes towards euthanasia and physician-assisted suicide among Pakistani and Indian doctors: A survey. *Indian Journal of Palliative Care*. 2008;14(2):71.
  29. Ahmed AM, Kheir MM. Attitudes towards euthanasia among final-year Khartoum University medical students. *EMHJ - Eastern Mediterranean Health Journal*. 2006;12(3-4):391-397.
  30. Tavoosiyan A, Sedaghat M, Aramesh K. Euthanasia: Assessment of medical students' perspective. *IJME*. 2009;3(1):43-52
  31. Aghababaei N, Hatami JA, Rostami R. The role of individual characteristics and judgment pattern in attitude towards euthanasia. *Iran J Crit Care Nurs*. 2011;4(1):23-32.
  32. Marriott JL. What can be done to help the pharmacy profession advance globally? *Am J Pharmaceut Educ*. 2018;82:908–909.
  33. Schindel TJ, Yukse IN, Breault R, Daniels J, Varnhagen S, Hughes CA. Perceptions of pharmacists' roles in the era of expanding scopes of practice. *Res Soc Adm Pharm*. 2017;13:148–161.
  34. Mossialos E, Courtin E, Naci H, et al. From "retailers" to health care providers: Transforming the role of community pharmacists in chronic disease management. *Health Policy*. 2015;119: 628–639.
  35. Babar ZUD, Scahill S, Nagaria RA, Curley LE. The future of pharmacy practice research – perspectives of academics and practitioners from Australia, NZ, United Kingdom, Canada and USA. *Res Soc Adm Pharm*. 2018;14:1163–1171.
  36. Varadarajan R, Freeman RA, Parmar JR. Aid-in-dying practice in Europe and the United States: legal and ethical perspectives for pharmacy. *Res Soc Adm Pharm*. 2016;12:1016–1025.
  37. Woods P, Schindel TJ, King MA, Mey A. Pharmacy practice in the domain of assisted dying: A mapping review of the literature. *Research in Social and Administrative Pharmacy*; 2019.
  38. Rupp MT, Isenhowe HL. Pharmacists' attitudes toward physician-assisted suicide; 1994.
  39. St. Jean AD. Washington State Society' succeeds in opposition to euthanasia measure. *Am / Hasp PItann*. 1992;49:265–6.
  40. Buijsen MAJM. Discuss the relationship between physicians and pharmacists in the context of euthanasia. *Nederlands tijdschrift voor geneeskunde*. 2018; 162:D2049-D2049.
  41. Hosseinzadeh K, Rafiei H. Nursing Student Attitudes toward Euthanasia: A Cross-Sectional Study. *Nursing Ethics*. 2019; 26(2):496-503.
  42. Terkamo-Moisio A, Gastmans C, Ryyänen OP, Pietilä AM. Finnish nurses'

- attitudes towards their role in the euthanasia process. *Nursing Ethics*. 2019; 26(3):700-14.
43. Hassanzadeh HA, Rastegari Najaf Abadi H, Sedaghat M, Saeedi Tehrani S, Aramesh K. The attitude of patients hospitalized in Tehran University of Medical Sciences hospitals towards euthanasia. *Journal of Medical Ethics and History of Medicine*. 2011;3(4):34-41.

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