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A Legal Right or Violation of Sanctities? A Narrative Review of Surveys on Euthanasia in Iran

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ABSTRACT

Euthanasia legalization in Islamic societies is still under debate. Iran is an Islamic country and the values of Iran's society are rooted in Islamic beliefs. In the present study, we decided to have a narrative-literature review on euthanasia in Iran, as a religious country. For the mentioned purpose, literature search was performed on Google Scholar and PubMed in order to elicit all the possible data. Results were limited to research on euthanasia in Iran. Articles were then analyzed using the narrative review process. Euthanasia research which included patients' data were assessed for ethics committee approval. After the mentioned procedure, a total of 17 documents were retrieved. All of the retrieved research projects were conducted to assess the attitude toward euthanasia and its acceptability by proper questionnaire. A survey on the retrieved documents determined that Iran's society have not yet supported the legitimacy of euthanasia as a social demand. However, it is essential to perform more research projects on various aspects of euthanasia such as do not resuscitate (DNR).

Keywords: Terminal Care, Euthanasia, Mercy Killing, DNR, Islam

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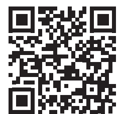

INTRODUCTION

"Death" is a well-known word but difficult to describe comprehensively in a sentence or even a paragraph. Briefly, death is the irreversible cessation of the living process that occurs in all living organisms, which is described in our daily conversations as the "end of life." Death itself is not a moral or ethical issue since life ends one day for everyone, and people worldwide deal with it according to their religion or culture. However, when it comes to life or death decisions, the conversation becomes much more complex, and typically, physicians are the primary counselors in these kinds of decisions (1). Regarding life or death, these decisions are a significant part of the clinical process, and physicians are responsible for managing and classifying them according to the patient's wishes and proper guidelines (2).

Euthanasia is a sophisticated concept and a critical approach that relies on different aspects of the setting, such as biomedical and healthcare system approach, treatment potentials, politics, law, ethics, religion, and culture (3, 4). Today, this approach is spreading in other societies, and despite all its advantages, it has caused several problems in developed and developing countries (5, 6). In the Netherlands, the total annual number of deaths increased by 5.3% between 1990 and 1995 and 3.5% between 1995 and 2001. In this country, the number of explicit requests for euthanasia or assisted suicide increased by 9.0%, from 8900 in 1990 to 9700 in 1995. Between 1995 and 2001, the death certificate studies indicated that the euthanasia rate increased from 1.7% of all deaths in 1990 to 2.4% in 1995, and further to 2.6% in 2001. From 2005 to 2010 euthanasia rate again increased, from 4.8% of all deaths to 6.7% (7, 8).

This phenomenon can be divided into two main categories according to the role of physicians during the euthanasia process: Active Euthanasia (AE) and Passive Euthanasia (PE). In some countries, the term PE is no longer used by medical scientists, and "Therapeutic Withdrawal" (TW) is used for the following purpose: the intentional acceleration of the patient's death by withholding or withdrawing the planned treatment, which causes death is the purpose of physicians. This is not the cessation of treatments that physicians believe are worthless to continue, but it is all about the cessation of life that physicians believe is meaningless. Generally, in TW, the physicians monitor the progression of the disease leading to the patient's death without any intervention or plan for treatment, while in AE, physicians use a method or a toxic substance in order to accelerate the patient's death (9). Currently, there are a few countries, such as Belgium, Netherlands, Luxemburg, Colombia, Uruguay, and Canada, in which AE is legally performed for individuals who ask to end their lives (1, 10).

The main discussion between biomedical scientists and religious people on euthanasia is centered around moral and

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ethical principles. The two most common arguments used in support of euthanasia are based on "relief from suffering" and "free will to choose." Proponents believe that the legalization of euthanasia is necessary for a healthcare system and ensures that no one dies in pain or incessant suffering (11). They identify three main benefits: allowing for individual autonomy and dying with dignity, reducing pain and great suffering caused by incurable diseases in the terminal phase, and providing psychological reassurance to dying patients (12). There are other social reasons to support euthanasia, such as feelings of being a burden to relatives and complications of old age (13). Due to the mentioned reasons, proponents believe that its legalization would not produce deleterious consequences (5, 14).

On the other hand, euthanasia opponents identify the dire consequences that would result from euthanasia legalization: euthanasia is morally wrong according to religious beliefs, medical ethics, and the "sanctity of life" and its purposefulness. Permitting euthanasia may provoke potential abuse. Also, gradual changes in the euthanasia concept are not unpredictable (13). Weakening the "doctor-patient relationship," risk of wrongful decisions and unfulfilled predictions, and unclear or false patient vision of euthanasia are the other reasons (12, 13). Commentators speculate that the impact of euthanasia on society is irreversible and frequently warn about the risks of a slippery slope (15-17).

The principle of the "sanctity of life" in different religions categorizes human life as a primary value that establishes a direct relationship with God and condemns any intervention that aims to end this relationship (10). Such an outlook, i.e., the belief in the principle of "sanctity of life," leads to religious people having more negative views on AE or TW.

The official religion of Iran is Islam, and Muslims believe that only God is responsible for the life and death of an individual. According to the Qur'an (sacred book of Muslims), life is a precious asset, and taking a life (whether suicide or anything else) is an unforgivable sin (18). Hence, based on Islamic beliefs, Muslims oppose euthanasia. Scholars of Shia Muslims prohibit euthanasia entirely and state that it is not permissible to take a patient's life, even if the patient and their family agree, and the act of killing in any circumstance is considered a sin. All allegations of euthanasia in Iran stem from Muslim beliefs, and no effort has been made to legalize euthanasia in Iran yet (19, 20). However, there are some approaches to passive euthanasia, such as "do not resuscitate" (DNR), that are in a gray zone since no clear law or guideline exists to condemn those who offer the service (21). Different attitudes and challenges toward euthanasia in an Islamic society like Iran make the subject an interesting one to investigate.

Euthanasia in Asia

As the largest and most populous continent with diverse ethnic groups, religions, socioeconomic characteristics, and government systems, an investigation in Asia makes it possible to have a better comprehensive comparison of socio-medical issues. India, China, and Japan, same as Iran, are experiencing an aging society that leads to an increase in end-of-life care problems (22-24). Also, most Middle Eastern countries, such as Turkey and Kuwait, experienced similar changes in demographic characteristics in recent years (25). End-of-life medical practice in mentioned countries has its unique problems compared to Western societies due to diverse opinions, beliefs, and other characteristics. Although the will of the patient is widely accepted in Western societies due to the paramount importance of individual autonomy (26), Asian physicians highly rely on the opinions of the patient's family. This makes the patient's desire ends up being undervalued or completely dismissed. It is necessary to review some of the research and policies of Asian countries on the euthanasia concept in order to determine the position of Iran in comparison to other countries.

China

The expression "painless killing" existed long before the foundation of the People's Republic of China. Unlike liberal democracies, the People's Republic of China claims that it needs to control the public opinion to maintain social harmony (27). For an extended period, under leftist extremists' pressure, people could not name the concept or use the method as it is used nowadays. However, over the past few years, people have begun to talk about it publicly. Although this expression is slightly different from the Western term euthanasia, the meanings and concepts are identical. The first official case of euthanasia was performed in the Han Zhong City on a 59-year-old woman diagnosed with hepatocirrhosis ascites in June 1986 (28).

In December 1987, the Chinese Dialectical Institute and the Beijing Medical Ethics Academy held a meeting for researchers, scientists, and the press to discuss the concept of euthanasia. They concluded that euthanasia could be applied to end-stage patients with no hope of being saved by the medical team. In the 20th century, euthanasia was increasingly accepted throughout the world, and China was no exception. According to several investigations, most Chinese agree with euthanasia, especially medical workers (29, 30).

Japan

In Japan, euthanasia has been in debate since the famous Tokai University and Keihoku Hospital euthanasia cases (31). In 1995 one of the district courts in Japan decided that there must be four standards for legally permissible euthanasia. According to these four criteria: 1-The affected person must be afflicted by intolerable physical pain, 2-The affected person's death should be inevitable and imminent, 3-All possible palliative care should be given, and no options to relieve the affected person's illness should exist, 4-The affected person should explicitly request physicians to assist and speed up the death (32). Although uncertainty and ambiguity about the practice of euthanasia persist in this country, in multiple surveys, between 0% and 73% of responding physicians and from 0.4% to 88% of responding nurses mentioned that they might approve euthanasia in unavoidable medical situations (33, 34).

India

The criminal and ethical validity of euthanasia has been questioned in unique situations. In India, the fame of euthanasia is not any different. Aruna Ramachandra Shanbaug was a tremendous public interest that led India's supreme court to provoke careful deliberations on euthanasia. In 2018 the supreme court made a landmark judgment allowing "residing will," which authorized an adult in his aware mind to refuse medical care. The judgment allowed for the practice of PE in India, and the interpretation of the "right to life" turned into the "right to die."

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Thereby euthanasia officially finds a way into the article-21 of a charter of India (35). In a cross-sectional study in India, most of the involved respondents (69.3%) supported the concept of euthanasia. Relief from excruciating pain and suffering was the most frequently cited reason (80.3%) for willingness to consider euthanasia. A majority of opponents (66.2%) believed that the freedom of euthanasia could easily be abused. Rejection of euthanasia was associated with religion, affiliation, and profession. According to this investigation, 76.9% of Muslims and 64.3% of Christians had negative views about euthanasia, compared with 24.3% of Hindu practitioners. Most of the doctors involved in this study supported euthanasia to relieve the insufferable pain (36).

Kuwait

Islam is the official religion of Kuwait, and there are no specific euthanasia laws in this country. However, a legal opinion can be derived from Article 149/4 of the Kuwaiti Penal Code, which prohibits the murder or speeding up of the end-of-life process. In addition, euthanasia is prohibited by Islamic teachings, same as Catholicism and Conservative Protestantism (37). In contrast, secular cultures support a person's right to decide for themselves about life and death.

In 2000, a study in Kuwait showed that only 19.9% of Physicians agreed with the idea of approving euthanasia by the Department of Health under certain restricted conditions (37). Another study indicated that about 40% of the physicians supported the legalization of euthanasia under restricted conditions, the same as the previous one. In this study, only 32% of Muslims approved euthanasia when the approach was presented in a scenario with an elderly patient in a coma. This was the lowest percentage compared to 59.1% of Christians and 61.1% of other religions. According to this study, physicians with university degrees in Europe and North America tended to agree more on euthanasia than physicians in Kuwait or other Arab countries (38).

Turkey

The culture of Turkey is a combination of a diverse set of features that have been derived from the different cultures of the Mediterranean, Western Asia, Central Asia, Middle East, and Eastern Europe, along with Caucasian traditions. Furthermore, a major part of Turkish society has Islamic beliefs (39). Turkey's Article 13 of the Patient's Code of Rights has clearly banned euthanasia. This article states that an individual cannot give up his/her right to live under any circumstances, even medical ones. It is stated that "one cannot give up on a person's right to live no matter what the reason is or even if it is a medical requirement. Even though there is a request from one's self or somebody else, no life can be taken" (40). However, findings of a recent study conducted on patients, doctors, and nurses showed that more than half of the participants believe that it is important for a patient to have the right to make decisions for their own life (40).

Palestine

The majority of the Palestinians living in the West Bank and Gaza are Muslims and there are no specific euthanasia laws in this country. Palestinian set of cultural values are mainly derived from religion. In this case, what constitute a "good death" is dying while surrounded with family. It is stated that when someone is terminally ill, family members usually prefer to take the patient home to be around him/her to provide comfort. Furthermore, company, friends and relatives tend to go and visit the patient and stay with him/her for a while. Among Arabs, the desire of appearing intact, bearing physical pains, hiding emotions, staying at the head of responsibility, performing duties, and playing roles without admitting the need for help or showing signs of disability are important factors in maintaining one's dignity (41, 42). A recent investigation studied the attitude of 905 Palestinian Muslim males and females between the ages of 13 and 32 toward abortion, euthanasia, and the death penalty. In this study, The attitude toward euthanasia was negative, even when there was immitigable suffering (43).

MATERIAL AND METHODS

On top of the various laws and opinions, we decided to have a narrative survey on euthanasia challenges in Iran as a highly religious country located in the Asia/Middle East region to evaluate the possibility of legalization in the future. For the mentioned purpose, PubMed and Google Scholar were selected as the data source. The search process was performed on 7 September 2021. We searched for euthanasia and all its related keywords, selected from Medical Subject Heading (Mesh) and other similar documents (44, 45). In order to retrieve the most relevant results, bulletin operators (AND/OR) were used in the search strategy, and results were limited to research on euthanasia in Iran. The search strategy was limited to English documents. No limitation was applied for the publication date. The following is the search query for the current investigation:

Google Scholar: ("euthanasia" OR "Mercy Killing" OR "do not resuscitate" OR "terminal care" OR "voluntary homicide") AND Iran

PubMed: ("euthanasia"[MeSH Terms] OR "euthanasia"[All Fields] OR "euthanasias"[All Fields] OR "Mercy Killing"[All Fields] OR "do not resuscitate"[All Fields] OR "terminal care"[All Fields] OR "voluntary homicide"[All Fields]) AND ("iran"[MeSH Terms] OR "iran"[All Fields])

In order to have a tangible evaluation, all reliable analytical documents were retrieved from the mentioned databases for literature review, and then duplicate documents were removed. Qualitative studies and reviews were used for other parts of the manuscript. Unreliable and irrelevant documents were excluded from the evaluation. Articles were then analyzed using the process of narrative review. A narrative review aims to provide a map of the scholarly work, alongside interpretation and critique (46). Although there are very strict criteria for systematic reviews, standards for narrative reviews are less well-established (47). The eligibility of the articles was carried out with the following procedure: eligible title, then abstract, and finally full-text. We tried to extract trustworthy information from documents to have a better outlook on euthanasia in Iran. Ethical approval was not required as no human subjects were involved during the research process. However, the studies that included patients' data were analyzed to make sure that they had ethics committee approval.

RESULTS

A few quantitative and qualitative studies have been conducted and published in recent years, trying to measure the acceptability of euthanasia and investigate its legal points according

to national and Islamic law. In the present study, a total of 17 documents were retrieved, and each one of them aimed to assess the attitude of samples toward euthanasia by proper questionnaire (Table 1).

Physicians and Nurses are the influential members of the healthcare team who encounter end-of-life issues; therefore, their attitude toward euthanasia could affect their decisions. As a result, several studies have been conducted regarding this issue. Zarghami et al. compared the attitude of 321 interns and residents from multiple universities in Iran and found no difference between them. The participants who had encountered more end-stage patients had a more positive attitude towards euthanasia. Male gender was related to a positive attitude, and religious beliefs had the opposite effect on the attitude. Marital status, level of education, and socioeconomic status did not affect the attitude. Authors believed that having religious beliefs was one of the major determinants of the kind of reaction toward euthanasia (48).

Naseh et al. assessed the attitude of Muslim nurses working in 2 different hospitals towards euthanasia in 2015. The majority of nurses (57.4%) had a negative attitude towards euthanasia. Age, gender, marital status, years of experience, and level of religious beliefs had no significant effect on the attitude (49). Safarpour et al. also assessed the attitude of 94 nurses towards euthanasia in 2019. The nurses had an overall negative attitude towards euthanasia. Gender, age, work experience, service ward, and level of education were not associated with the attitude (50). In 2021, Khatony et al. investigated the attitude of 380 nurses and 120 nursing students towards euthanasia. Interestingly, the participants had a positive attitude towards euthanasia, and nursing students showed a significantly more positive attitude (51). Several other studies assessed the attitude of nurses and nursing students (52-55). All of the mentioned research documents claimed that 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.

Assuming that DNR (Do Not Resuscitate) order is a type of passive euthanasia (56), several studies have been conducted in Iran assessing the attitude of physicians towards such order. Cheraghi et al. evaluated the experience of 8 physicians toward DNR orders qualitatively. According to the findings, the physicians had an overall positive attitude towards DNR orders since they believed it would result in a dignified death for patients (57). In another study carried out in Kermanshah hospitals, the physicians showed a positive attitude towards DNR. Moreover, the educational level was found to be related to the attitude, while age, gender, and experience of DNR orders had no relationship with the attitude (21). The authors mentioned that despite the informal and nonstandard prevalence of the DNR order, there is no definitive conclusion about the legality of the action which has caused many ambiguities for the doctors.

Several studies have been conducted evaluating the attitude of medical and nursing students towards euthanasia in Iran. In the study of Hazrati et al., which examined the attitudes of 150 medical and nursing students of AJA (Islamic Republic of Iran Army) University of Medical Sciences towards euthanasia and its relationship with optimism, a favorable attitude was not found, and nursing and medical students did not show any difference in this regard (58). In another study conducted by Moghadam et al., viewpoints of 152 medical students of different levels studying at Birjand University of Medical Sciences were evaluated. According to the results, less than half of the participants supported euthanasia. Furthermore, age and clinical experience significantly impacted supporting voluntary active euthanasia (59). In another study at Qazvin University of Medical Sciences, neutral attitudes toward euthanasia were found, and no relationship was observed between euthanasia attitudes and personal beliefs (60). In this case, authors mentioned that investigation of medical and nursing students' attitudes as a community of the medical personnel who will get into healthcare practice as physician in the future and will face an issue in this regard can vindicate the situation and the needs of this class in the country.

Making end-life decisions involves the patients and their relatives as well. So, there is a need for awareness about the attitude of patients and people. Several studies have been conducted in Iran in this regard. Saadat et al. investigated the attitude of patients toward euthanasia in a cross-sectional pilot study. In this study, four groups of dying patients, a relative of patients, depressed patients, and non-depressed patients were included. Although non-depressed patients had the lowest euthanasia agreeability, there was no significant difference between the study groups and gender (61). In another study carried out by Bordbar et al., the attitude of healthcare providers, patients, and their families toward DNR orders in an Iranian oncology hospital was investigated. According to the findings, the healthcare provider group had the most positive attitude regarding DNR orders. Moreover, age, level of education, economic status, residential place, and income level were significantly associated with attitude (62).

There is a believe that students in the level of higher education appear to have a more intellectual orientation toward religion and spirituality. In the study of Aghababaei and Wasserman, the attitude of 284 Muslim university students toward euthanasia was investigated in Tehran. Although male participants had a more positive attitude, the difference between genders was not statistically significant. Furthermore, religiosity had a negative effect on attitude (63). In another study, Aghababaei et al. investigated the effect of the different aspects of personality on the Euthanasia Attitude Scale (EAS) score. The results showed that religiosity, honesty–humility, agreeableness, and extraversion were associated with negative attitudes toward euthanasia; however, openness was related to acceptance of euthanasia (64).

DISCUSSION

The present literature review aims to provide an overview of euthanasia in Iran. In recent decades, the applicability of euthanasia has been debated in Iran. One of the significant factors that distinguish Iran from Western countries is the influence of religion, Islam, on the law. In fact, religion would determine whether euthanasia is lawfully or ethically applicable or not. According to Islam, as mentioned before, life is sacred and cannot be terminated by any means and in any condition (65).

The legitimacy of euthanasia of any kind is limited in Iran. Other countries worldwide have prohibited such action, like

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Turkey and Kuwait (17, 66). These countries seem to have similar challenges to Iran since euthanasia, based on Islamic teachings, in all three, is an unforgivable sin, equal to murder (67). In some countries, such as China and India, the topic of euthanasia has been taken to court, resulting in the possibility of euthanasia under certain circumstances (30, 35). However, the legalization of euthanasia seems to remain a similar challenge in almost every Islamic country.

In the case of religion, a study examining euthanasia from an Islamic perspective has clearly shown that PE is permitted in the two forms of relieving a patient's pain and withholding or withdrawing the life support when there is no doubt that treatments are no longer helpful. Additionally, obtaining the consent of all parties related to the patient's well-being has been mentioned as essential (68). In contrast, the findings of Cheraghi et al. showed that even in DNR orders, a lack of legal support would prevent the physicians from complying with the order, except in the case of organ donations (57). This contradiction will not be resolved until proper guidelines are established according to Islamic law.

In the present study, attitude towards euthanasia was mostly negative and neutral. The effect of culture on attitude should not be neglected. In a study comparing euthanasia across different cultural perspectives, there was no difference between Iranian Muslims and Christians (64). Regarding the influence of culture, it can be pointed out that euthanasia is a topic of public debate in Western and pop cultures, and perhaps that is why American samples are more in favor of euthanasia than Iranian ones (69). Zarghami et al. believe that negative attitudes towards euthanasia go beyond religion and are related to the combination of culture and religion. According to this view, the media, which plays an important role in forming a culture, can influence people's attitudes (48). Hence, it can be concluded that the nations' general attitude toward euthanasia highly relies on the process of introduction by media and education systems. Findings from an investigation conducted in turkey support the mentioned idea (70).

The negative effect of religious beliefs on approval of euthanasia is well observed in Iranian studies (48, 54, 63, 64). However, the degree of religiosity did not significantly affect the attitude in a study (49). Several other variables are believed to be related to attitude towards euthanasia. In this regard, there are contradictory findings on the effect of age, gender, working experience, and education level on attitude towards euthanasia (48-50, 59). For example, in several studies, the male gender showed a positive effect on euthanasia (48, 51, 52, 54). In contrast, gender differences were not significant in other studies (49, 50, 60). In addition to different study samples, the reason for these discrepancies may be the use of different study methods to examine attitudes towards euthanasia. Aghababaei et al. compared the two scales of euthanasia attitude, EAS and the Attitude Towards Euthanasia (ATE) scale. By examining opposition or support for euthanasia, different scales can make a slight difference of up to 17.5% (71).

Taken together, despite the relatively small volume of research documents and social limitations, the breadth of perspectives in argumentation was impressive. However, we are far from getting a firm conclusion on the situation and acceptability of euthanasia in Iran which require more precise observational investigations and evaluations.

The main limitation of the present study was the shortage of published documents in the field of euthanasia in Iran, which resulted in not reaching a precise answer to the issue. Furthermore, published articles in Persian were not included in the present research. However, by investigating retrieved articles from Google Scholar and PubMed, we tried to indicate the main aspects of the issue, properly.

CONCLUSION

Euthanasia has found its way through some developed and developing countries' healthcare systems and is legally used by medical staff. However, euthanasia legalization in Islamic countries is still ambiguous. The application and legalization of euthanasia in these countries in the future will undoubtedly be challenged by both the society and the government, which will encompass social, legal, political, ethical, financial, and religious aspects. The values of Iran's society, which are rooted in Islamic values, beliefs, as well as norms of Iranian culture, have not yet supported the legitimacy of euthanasia as a social demand. It is not a severe concern of public opinion, and there is no serious debate on euthanasia in public and on social media. It is unquestionable that the landscape of euthanasia in Iran is not going to change unless by forming a favorable public opinion.

Due to the mentioned challenges, there is a need to conduct more research projects on different aspects of euthanasia (such as DNR). Also, evaluation of the possibility of euthanasia legalization in Iran and evaluation of the euthanasia social acceptance should be considered by Iranian researchers. In order to better and more accurately investigate this issue, more standard-scale studies on attitudes towards euthanasia should be conducted in Iran. In addition, specific guidelines and regulations that are in line with end-of-life decisions under Iranian Islamic law seem necessary.

ETHICAL CONSIDERATION

The stuyd adhered to Helsiniki guidline.

CONFLICT OF INTRESETS

There are no conflicts of interest in terms of the present manuscript.

AVAILABILITY OF DATA AND MATERIALS

The data used and analyzed in the current study are available in body of the manuscript.

ABBREVATIONS

None.

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Table 1. A summary of Iranian research projects with the subject of euthanasia..

Row	Study	Sample Size	Location	Participants	Questionnaire	Attitude
1	Zarghami et al., 2010 (48)	321	Sari, Tehran, Babol	Medical Interns and Residents	Self-administered Questionnaire	49% support and 51% opposed
2	Aghababaei et al., 2011 (71)	197	Tehran	Non-medical Students from University of Tehran and Islamic Azad University	Attitude Toward Euthanasia (ATE) and Euthanasia Attitude Scale (EAS)	Analyzing the attitude towards euthanasia with the use of EAS rather than the ATE scale results in lower levels of opposition against euthanasia
3	Aghababaei & Wasserman, 2013 (63)	284	Tehran	Non-medical Students of State University	Attitude Toward Euthanasia (ATE)	Overall disagreement
4	Aghababaei et al., 2014 (64)	165	Tehran	Non-medical Students of State University	Euthanasia Attitude Scale (EAS)	Neutral attitude
5	Aghababaei, 2014 (72)	190	Tehran	Non-medical Students of State University	Attitude Toward Euthanasia (ATE)	Negative attitude
6	Naseh et al., 2015 (49)	190	Shahrekord	Nurses	Euthanasia Attitude Scale (EAS)	57.4% negative and 39.5% positive
7	Wasserman et al., 2016 (69)	321 (165 Iranian and 156 American)	Iran and USA	Non-medical University Students	Attitude Toward Euthanasia (EAS) with Modifications	Attitudes toward euthanasia are significantly more positive among the U.S. samples
8	Naseh & Heidari, 2017 (54)	120	Shahrekord	Nursing Students	Euthanasia Attitude Scale (EAS)	52.5% negative and 45% positive
9	Saadat et al., 2018 (61)	64 (Pilot study)	Babol	Patients	Researcher-made Questionnaire	No significant difference between attitude towards euthanasia among depressed and dying patients versus relatives of dying patients, non-depressed patients
10	Alborzi et al., 2018 (52)	100	Ahvaz	Nurses	Euthanasia Attitude Scale (EAS)	Negative Attitude
11	Rafi et al., 2019 (55)	190	Behbahan	Nurses and Nursing students	Euthanasia Attitude Scale (EAS)	No significant difference between nurses and students regarding euthanasia attitude
12	Hosseinzadeh & Rafiei, 2019 (53)	382	Qazvin and Takestan	Nursing students	Euthanasia Attitude Scale (EAS)	32.2% Negative 41.6% Neutral 24% Positive
13	Hazrati et al., 2019 (58)	150	AJA University (Tehran)	Medical and Nursing Students	Researcher-made	Unfavorable euthanasia attitude
14	Safarpour et al., 2019 (50)	94	Zahedan	Nurses	Euthanasia Attitude Scale (EAS)	Negative attitude
15	Moghadam et al., 2019 (59)	152	Birjand	Medical Students	Researcher-made Questionnaire	Voluntary active euthanasia 30.9% Involuntary active euthanasia 38.8% Passive Euthanasia 44.7% Performing euthanasia 49.3%
16	Senmar et al., 2020 (60)	121	Qazvin	Nursing Students	Euthanasia Attitude Scale (EAS)	Neutral attitude
17	Khatony et al., 2021 (51)	515	Kermanshah	Nurses and Nursing Students	Euthanasia Attitude Scale (EAS)	Positive attitude

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