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Research article

Attitudes of nursing students towards the legalization of euthanasia, end-of-life planning and the spiritual dimension: A quantitative study

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ABSTRACT

Background: The Law on Euthanasia was approved in Spain and implemented in the health system. Nursing students must position themselves with respect to euthanasia in their work in the near future.
Objectives: To know the attitudes of nursing students towards the legalization of euthanasia, its relationship with end-of-life planning, and the spiritual dimension.
Design: A cross-sectional descriptive quantitative study.
Settings and participants: Study carried out with students of the Nursing Degree at the Universities of Huelva and Almería in Spain from April to July 2021.
Methods: Attitudes towards the final phase of life, Anxiety towards death, and Attitudes towards Euthanasia questionnaires were administered. Descriptive, inferential and logistic regression statistics were calculated to determine the relationship between attitudes towards euthanasia and sociodemographic variables, end-of-life planning, and the spiritual dimension.
Results: 285 Nursing students with an average age of 23.58 years (SD = 8.19) participated. The scores on the attitude towards euthanasia were higher than the mean. While 70.5 % of the students were aware about advanced planning, only 2.5 % of them had made advanced plans. In religious practice and the spiritual dimension, the average score was high as they considered these elements to be of great support at the end of life. In terms of anxiety about death, the average score was significantly higher in women. Age, spiritual accompaniment and help, and the frequency with which spiritual beliefs are practiced are predictive factors for the attitude towards euthanasia.
Conclusions: Students have a positive vision of euthanasia while admitting anxiety about death. They emphasize advance planning and greater religious practice as supports for euthanasia. The need for curricular training related to moral deliberation and values that support euthanasia is clear.

1. Introduction

Euthanasia in Spain was approved by the Organic Law regulating euthanasia on 24 March 2021 (Martin-Sanchez, 2021). This law urges health professionals to be responsible for informing, assessing, and carrying out the act of euthanasia (Bernal and Trejo-Gabriel-Galán, 2022). This law impacts on deeply personal aspects of health professionals related to their values, thoughts, and beliefs (Altisent et al., 2021). In addition, it is important to support the rights of the professional to their free conscientious objection, as determined by their ideals (Lamb et al., 2019).

2. Background

According to current studies, health professionals who have been educated under the new curricula (RD-43/2015) within the framework

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of the European Higher Education Area have a culture which stresses ethical and human values related to the end of people's lives, where respect and the autonomy of citizens' decisions in irreversible life situations are emphasized (Martins et al., 2020; Gassas and Salem, 2022). The concerns of nurses show the need for a profound cultural change regarding end of life issues and euthanasia (Woods and Rook, 2022; Rodríguez-Prat et al., 2017). This is why, for young professionals, paternalistic attitudes that limit the capacity for dialogue between health professionals and their interlocutors should be abandoned (Gómez-Vírseda et al., 2020; McDougall et al., 2021).

The right of people to decide through advance directives helps professionals determine the best decisions for those in irreversible situations (Sedini et al., 2021). Advance directives are legal documents that contain the wishes of the person who signs them in relation to the decisions to be made in their health care in the event that they are unable to decide for themselves (Sudore et al., 2019). Initiating the advance planning process helps in the communication between professionals, patients, and family members in end-of-life decision-making (Mast, 2020).

In the end-of-life processes, the professional is responsible for making a comprehensive and committed response, also bringing into play the importance of the spiritual dimension of people's lives (Christian et al., 2019). Although for many people this dimension includes a religious component (Paul-Victor and Treschuk, 2020), for other people the spiritual aspect of human life is integrated with physical, psychological, and social elements (Charzyńska and Heszen-Celińska, 2020). The vision that people have of spirituality will be a determining element in the end-of-life process since it favours the quality of care and coping with death, to the extent that this dimension is taken into account, favouring comprehensive care that promotes more empathetic and person-centered care (Sousa et al., 2021). As a result, the opinions of nursing students towards euthanasia and its legalization, as well as the values that underlie their positions, should be investigated.

3. Methods

3.1. Aims

The aim of this study was to discover the attitudes of nursing students towards the implementation of euthanasia and its relationship with end-of-life planning and the spiritual dimension.

3.2. Study design

A quantitative descriptive cross-sectional study.

3.3. Setting and participants

The study was conducted from April to July 2021. The participants were Nursing Degree students at two universities in southeastern Spain (University of Huelva and University of Almería). The inclusion criteria were to be students enrolled in any of the four courses that make up the Degree in Nursing at both universities and to be actively pursuing their studies. Those students who did not give their consent to participate in the study were excluded. Convenience sampling was carried out due to the accessibility of the sample. The recruitment of students was made by the coordinator of some of the subjects in the courses of the nursing degree at each university. The possible sample was 990 students, and with a confidence level of 95 % and an anticipated frequency of 50 %, the necessary sample should be at least 277 participants. A total of 285 nursing students (230 women; 55 men) were recruited.

3.4. Data collection

A self-administered online questionnaire was designed to avoid attendance in classrooms due to prevention and safety regulations of the COVID-19 pandemic. This questionnaire was distributed by the teachers who participated in the study both through social networks and the students' email, thus facilitating its dissemination. The students had been previously informed in the virtual classes about the aim of the study, and their consent was requested for the dissemination of the questionnaire. The teachers were trained in the use of the questionnaire and in possible questions related to right completion. In addition, they were provided with the email of the researchers in order to ask questions about its completion. To control for possible coercion, students were informed in advance that participation in the study was voluntary and through a self-administered questionnaire. The questionnaire was completely anonymous, and the answers were compiled in a database, looked after by the main researcher of the study.

3.5. Instruments

The sociodemographic variables included in the form were age, sex, university of origin, academic year, and completion of social and health internships. In addition, the following measuring instruments were used:

- *End of Life Attitudes Questionnaire* (Ortiz-Gonçalves et al., 2018). This is a self-administered questionnaire designed and validated in the Spanish population. This questionnaire has 42 questions with different response options (dichotomous, polychotomous, or numerical scales with from 1 to 10 points). The variables studied are divided into 6 modules: 1) Psychophysical care (1–12 items); 2) Palliative care (13–19 items); 3) Euthanasia and assisted suicide (20–25 items); 4) Advance planning (26–34 items); 5) The Spiritual dimension (35–38 items); 6) Sociodemographic data (39–42 items). Modules 4 and 5 were used in this study. The modules are independent, and each module describes the objective of the module.
- *Death Anxiety Scale* (Templer, 1970), translated into Spanish and validated by Ramos in the Spanish population (1982). This dichotomous scale consists of 15 items, to which the subjects have to answer true or false, depending on whether or not they agree with the statements presented to them. The lowest score that can be obtained is 0, and the highest is 15, with high scores indicating high levels of anxiety. The reliability coefficient of this instrument was 0.85 (Ramos, 1982).
- *Attitudes Towards Euthanasia scale (ATE scale)* (Tordella and Neutens, 1979) in its version translated and validated into Spanish by Onieva-Zafra et al. (2020). The ATE scale consists of 21 items with four domains: ethical considerations, practical considerations, treasuring life, and naturalistic beliefs. Responses were scored on a 5-point Likert-type scale where 5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree, and 1 = strongly disagree. The score range is from 21 to 105, with higher scores representing more positive attitudes towards euthanasia. Cronbach's alpha was 0.87 (Onieva-Zafra et al., 2020).

3.6. Ethical considerations

The study was carried out with prior authorization from the Research Ethics Committee of the Department of Nursing, Physiotherapy, and Medicine of the University of Almería (EFM 95/2021). The participants collaborated voluntarily and with prior informed consent. They were given detailed information about their right to participate or not in the research and to withdraw their consent at any time. The study was based on the ethical principles established in the Declaration of Helsinki. The anonymity of the participants and the confidentiality of the data were protected according to Organic Law 3/2018, of December 5, on the Protection of Personal Data and guarantee of digital rights, using the data collected for no other purposes than the aims and purposes of this study.

3.7. Data analysis

A descriptive analysis was performed using means and standard deviation for quantitative variables and frequencies and percentages for qualitative variables. After verifying the normal distribution of the quantitative variables with the Kolmogorov-Smirnov test, the Student's *t*-test and one-way ANOVA statistics were used to compare means, and Pearson's correlation to measure the relationship between two quantitative variables. Effect size was analyzed with Cohen's d (d) considering small to be a score of 0.2, medium 0.5, and large 0.8 (Cohen, 2016). Finally, a backward stepwise binary logistic regression was performed to predict high scores (higher than the mean) on the scale of attitude towards euthanasia (dependent variable with two values, "In Favour", or "Not in Favour" of euthanasia), from sociodemographic and spiritual variables (independent variables). A significance level of 0.05 was established. The statistical program SPSS v. 28 was used for data analysis.

4. Results

4.1. Sociodemographic characteristics of the participants

285 nursing students, with a mean age of 23.58 ± 8.19, the youngest being 18 years old and the oldest 56 years old, participated. 71.2 % belonged to the University of Huelva and 28.8 % belonged to the University of Almería, 35.8 % were in the second year of the Nursing Degree, and 50.9 % of the students had carried out clinical practices in social and health centers according to their academic training (Table 1).

4.2. Attitudes towards the final phase of life: advance planning and the spiritual dimension

70.5 % of the students were aware of the possibility of advance planning (Module 4) although only 34.7 % stated that they were aware of the existence of a record of this in their living quarters. Only 2.5 % of the students had already done so, and of these only 1.8 % had made a record of it. 38.9 % stated that their relatives and close friends knew their wishes at the end of their life, and 94.4 % would like to be able to make their own choices for the end of their lives. 2.8 % of the participants belonged to an association that promotes the registration of advance directives.

The mean score as to whether receiving spiritual help and accompaniment in the end-of-life process would be supportive (Module 5) was 9.44 (SD = 1.11). The mean score of the frequency of religious practices was 4.64 (SD = 2.77) points out of a maximum of 10. A correlation was identified between considering support and spiritual help at the end of life to be highly supportive and the frequency of practicing their beliefs (r = 0.230, p < .01). In relation to whether they would request spiritual accompaniment in the final process of their life, 59.3 % stated no, 26.7 % did not know or did not answer, and 14 % of the participants stated that they would.

Table 1
Sociodemographic characteristics of the participants.

Sociodemographic variables		Mean ± SD	n (%)
Age		23.58 ± 8.19	
Sex	Men		55 (19.3)
	Women		230 (80.7)
University	Huelva		203 (71.2)
	Almería		82 (28.8)
Course	1st year		85 (29.8)
	2nd year		102 (35.8)
	3rd year		51 (17.9)
	4th year		47 (16.5)
Socio-sanitary practices	Yes		145 (50.9)
	No		140 (49.1)

4.3. The Death Anxiety Scale

The mean total score on the Death Anxiety Scale was 7.84 (SD = 2.15). When analyzing the score of the various factors of the scale taking into account the sociodemographic and academic variables, no statistically significant differences were found. However, when comparing by sex, significantly higher scores were obtained in women for the cognitive-affective dimension (p = .039; d = 0.32) (Table 2).

4.4. Attitudes towards euthanasia

The total mean score for the Attitude towards Euthanasia scale was 84.58 (SD = 11.07). For the Ethical Considerations Dimension a mean score of 46.38 (SD = 6.91) was obtained; in Practical Considerations it was 14.25 (SD = 2.76); in "*Treasuring of Life*" 13.53 (SD = 2.24); and, finally, in "*Naturalistic Beliefs*" the mean score was 5.96 (SD = 1.25). Table 3 shows the comparison of the mean scores of each Dimension and the total score according to the sociodemographic variables. A significant negative correlation was found between Age and Ethical Considerations (r = −0.185, p = .002), Practical Considerations (r = −0.141, p = .017), "*Treasuring of Life*" (r = −0.185, p = .002, r = −0.133, p = .025) and the total score of the Attitude Towards Euthanasia scale (r = −0.190, p = .001).

An item-by-item analysis regarding sex identifies significantly higher mean scores (p = .011; d = 0.36) for Item 1e and (p = .026; d = 0.35) for Item 1 h. Thus, men 4.47 (SD = 0.77) were more likely to consider that "*Euthanasia is useful at the right time and place*" (Item 1e) compared to women 4.11 (SD = 0.97); while in relation to "*Euthanasia should be used when the person has a terminal illness*" (Item 1h) women (M = 4.18; SD = 0.99) scored higher than men (M = 3.84; SD = 1.18).

In addition, when comparing the scores on the Death Anxiety scale according to the knowledge of Advance Planning (Module 3) on the Attitudes towards the End of Life scale, those who know about the possibility of advance planning had a significantly lower score of 7.61 (SD = 2.18), compared to the 8.45 (SD = 1.73) of those who do not know (p = .015; d = 0.42), and this especially stands out in the analysis of the various factor differences in relation to the cognitive-affective dimension for which the average score for those who know about this possibility is 3.02 (SD = 1.63), compared to 3.83 (SD = 1.48) for those who do not (p = .002; d = 0.54). Significant differences were also found for the cognitive-behavioural dimension (p = .038; d = 1.68) and the total score of the questionnaire (p = .030; d = 1.37). Thus, the means for this dimension among those who had not made Advance Planning were 3.23 (SD = 1.65), compared to those who had, 1.86 (SD = 1.35); while for the total score of the questionnaire, the means for not having made Advance Planning was 7.82 (SD = 2.10) compared to those who had, 6.14 (SD = 2.48).

In Module 4 of the Attitudes towards the End of Life scale, when assessing the correlation between the mean scores on Spirituality and the Death Anxiety scale, an inverse correlation was identified between

Table 2
Death anxiety according to sex.

Death anxiety factors	Sex		p-Value
	Men (n = 55) M ± SD	Women (n = 230) M ± SD	
Factor 1: Cognitive affective	2.82 ± 1.45	3.33 ± 1.67	.039*
Factor 2: Pain and struggle	2.65 ± 0.80	2.64 ± 0.72	.889
Factor 3: Related to death	1.07 ± 0.50	1.10 ± 0.72	.783
Factor 4: Awareness of the passing of time	0.87 ± 0.43	0.88 ± 0.52	.896
Total	7.42 ± 1.94	7.94 ± 2.18	.103

Notes: Student t-test for independent samples; M = mean; SD=standard deviation.
* p < .05.

Table 3
Attitudes towards euthanasia according to sex, university of study, course, and socio-sanitary practice.

Variables		Dimension 1		Dimension 2		Dimension 3		Dimension 4		Total	
		Mean + SD	p-Value	Mean + SD	p-Value	Mean + SD	p-Value	Mean + SD	p-Value	Mean + SD	p-Value
Sex	Men	46.27 ± 6.87	.585[a]	14.23 ± 2.83	.824[a]	13.52 ± 2.33	.935[a]	5.99 ± 1.29	.544[a]	84.47 ± 11.37	.762[a]
	Women	46.84 ± 7.09		14.33 ± 2.49		13.55 ± 1.82		5.87 ± 1.09		84.98 ± 9.74	
University	Huelva	45.99 ± 6.94	.130[a]	14.08 ± 2.55	.130[a]	13.45 ± 2.30	.355[a]	5.99 ± 1.30	.668[a]	83.92 ± 11.07	.116[a]
	Almería	47.35 ± 6.76		14.68 ± 3.20		13.72 ± 2.07		5.91 ± 1.15		86.20 ± 10.97	
Course	1st year	45.80 ± 6.84	.742[b]	15.00 ± 2.70	.009[b,*]	13.42 ± 2.36	.918[b]	6.01 ± 1.23	.482[b]	84.62 ± 1110	.920[b]
	2nd year	46.91 ± 6.41		14.12 ± 2.39		13.53 ± 2.10		5.94 ± 1.21		85.01 ± 9.51	
	3rd year	46.47 ± 7.06		14.10 ± 3.24		13.71 ± 2.30		5.76 ± 1.38		84.49 ± 12.35	
	4th year	46.17 ± 7.96		13.36 ± 2.81		13.51 ± 2.30		6.15 ± 1.25		84.58 ± 11.07	
Socio-sanitary practices	No	46.01 ± 6.58	.382[a]	14.55 ± 2.65	.074[a]	13.46 ± 2.16	.609[a]	5.99 ± 1.23	.712[a]	84.42 ± 10.35	.818[a]
	Yes	46.73 ± 7.21		13.97 ± 2.84		13.59 ± 2.31		5.94 ± 1.28		84.72 ± 11.75	

Notes: Dimension 1: Ethical Considerations; Dimension 2: Practical Considerations; Dimension 3: Treasuring of Life, Dimension 4: Naturalistic Beliefs.
[a] Student t-test for independent samples.
[b] 1-Way Anova.
[*] $p < .05$.

the frequency of practicing beliefs and Dimension 3 (treasuring life) on the death anxiety scale ($r = -0.134$; $p = 023$). Regarding religiosity, a statistically significant inverse correlation was identified between the total score of the Attitude Towards Euthanasia scale and the frequency with which the participants practiced their beliefs ($r = -0.272$, $p < .01$).

In the logistic regression to predict the attitude towards euthanasia from sociodemographic and spiritual variables, it was observed that age, spiritual accompaniment and help (Spiritual Question 1) and the frequency with which spiritual beliefs are practiced (Spiritual Question 4) are predictive factors, as seen in Table 4. Thus, for each year older, the probability of a positive attitude towards euthanasia decreases by 4 %. As for the frequency of spiritual practice, each point that it increases decreases the probability of a positive attitude towards euthanasia by 15.1 %. On the contrary, spiritual accompaniment and help at the end of life increase the probability of a positive attitude towards euthanasia by 34.3 %.

5. Discussion

This study has focused on discovering the attitudes of nursing students towards the legalization of euthanasia and its relationship with advance planning for the end of life and the spiritual dimension. One of the important findings is the widespread positive attitudes towards euthanasia among students. Age plays a prominent role, and the younger the person, the more positive the view of the euthanasia process. Similar studies conducted with nursing, medical, and law students also showed a clear positive stance towards euthanasia and its legalization (Szczupakowska et al., 2021; Woods and Rook, 2022). Given the complexity of the subject, it can be assumed that this generalized positive view may be due to the current paradigm more focused on autonomy and respect for the wishes of the sick person as opposed to more paternalistic traditional models, or it may be related to the lack of ethical reflection of the students. To deal with conflicts of this type, a more mature and educated moral competence is required, which is based on original and contemporary ethical thinking (Martins et al., 2020).

Table 4
Attitude towards euthanasia from sociodemographic and spiritual variables: logistic regression.

Variables	B	OR	IC 95 %		p-Value
Age	−0.033	0.968	0.937	0.999	.043*
Spiritual 1. Do you consider that the accompaniment and spiritual support in the final process of life is of great help?	0.295	1.343	1.046	1.723	.021*
Spiritual 4. Frequency with which you practice your beliefs.	−0,164	0.849	0.772	0.933	.001**

Notes: B = coefficient of determination; OR = odd ratio; CI = confidence interval.
[*] <.05.
[**] <.01.

Another element to highlight is the level of anxiety about death, with the participants showing moderately significant levels, being higher in women than in men. This may be due, on the one hand, to the higher percentage of women, and, on the other, to cultural factors that modulate the management of emotions and make the female more emotionally vulnerable to death. Nursing students stated that they did not feel sufficiently prepared to face this type of process (Torres-Estrada and Sosa-Rosas, 2020; Szczupakowska et al., 2021). This also occurs among health professionals and is often masked by cynical attitudes of indifference and emotional distance towards the sick person as compensatory mechanisms (Ahmed et al., 2022).

The nursing students who were familiar with advance planning and had already made plans showed less anxiety in the face of death. This may be related to the fact that those who are interested in end-of-life planning have a certain relationship with the subject of death. Putting down in a document their wishes about how they want to experience death and have these wishes respected generates more calm and tranquillity for them because it allows them to better connect with this experience of the person at the end-of-life. However, the fact that this is not common among the participants is probably due to their youth and absence of disease, and the conviction that death is still a long way off. In addition, those who have already made plans see this as a suitable and comfortable instrument that has helped them in the care for the sick person; however, there were a limited number and few records of such cases (Fernández-Rodríguez et al., 2022).

These results are consistent with the first stage of implementation of euthanasia called the legalization phase (Martinez-Navarro, 2021). According to the experience of other countries that are already at a more advanced phase of post-legislative application, the initial challenge lies in the integration of the norms. Once this has been done, the focus is on the integration of effective skills for care planning, communication with the family and with the person requesting euthanasia (Martinez-Navarro, 2021). This is the real challenge and implies the vision of advance planning as a deliberative communication process in the accompaniment and care of the sick person and their family (Heath et al., 2021).

The spiritual dimension and religious practice appear as another of the conditioning factors of the attitude towards euthanasia. In this study, people with greater religious practice had less anxiety in relation to death. This study starts from a cultural context with prevailing Christian

religious beliefs. The attitude of the participants can be interpreted in such a way that certain values of this belief such as giving meaning to life or orienting decisions at the end of life (Charzyńska and Heszen-Celińska, 2020). Even visualizing transcendence and asking for forgiveness in saying goodbye as the closing of a life cycle will imply greater peace of mind in the face of death (Ortega-Galán et al., 2020).

Spiritual accompaniment is also considered by the participants to be a factor of support and relief in the dying process. Therefore, the more aware of the need for spiritual support as a factor for the relief of suffering in the dying process, the greater the tendency to present a positive attitude towards euthanasia. An explanation for this is given by the fact that the development of the spiritual dimension of the person is linked to reflection on the meaning of life (Bueno-Bejarano et al., 2020) and to an increase in the value attributed to the process of care, which promotes more balanced and humanized attention in the face of death (Norouzadeh et al., 2020). Likewise, in this study a positive correlation was identified between the levels of the frequency of religious practice and considering spiritual accompaniment as an effective tool in coping with the final phase of life. Other studies also report that spiritual growth and maturity give meaning to the experience of illness and loss, which allows for better coping with pain (Christian et al., 2019; Sousa et al., 2021) and with the suffering inherent in these processes (Ortega-Galán et al., 2020). Communication with the sick person and their family takes place at more intimate levels, permitting a deeper and more effective encounter (Norouzadeh et al., 2020), with greater commitment for the future professional and also more satisfying for everyone (Stokman et al., 2021).

5.1. Limitations

This work has a number of limitations. It is a cross-sectional descriptive study, and therefore causal relationships between the variables cannot be established. Most of the students are women, which may influence attitudes towards euthanasia, however, the nursing profession contains a majority of women. In a self-administered questionnaire, a social desirability bias may appear. Despite these limitations, this study has allowed us to obtain an approximation of the position that nursing students have regarding euthanasia.

6. Conclusions

Nursing students have a positive view of euthanasia although they admit anxiety in coping with death. The increase in age and the progression in the academic courses raises the sense of complexity and responsibility in facing euthanasia, for which the students admit feeling unprepared. In end-of-life care, nursing students prioritize the importance of knowing and taking into account the person's opinion and wishes, positively valuing the advance planning of end-of-life decisions. However, the majority have not done so although advance end-of-life planning reduces anxiety about death. The spiritual dimension is considered an important element and a tool that alleviates suffering. This consideration predicts positive attitudes towards euthanasia. However, a greater religious praxis is linked to more reserved attitudes towards the implementation of euthanasia.

As a result, we can highlight the importance of including in the academic curriculum of health disciplines practical training with legal, bioethical (moral deliberation), conscious, and compassionate communication components that favour the human and professional integrity of future health professionals who face the challenge of accompanying the end of life process. In terms of future lines of research, it will be necessary to investigate the spiritual and religious aspects linked to the more or less positive perception of euthanasia of the new generations of professionals. Likewise, it will be of interest to develop interventions that reduce anxiety about death in students through advance planning or the raising awareness of the spiritual dimension.

CRediT authorship contribution statement

All authors have made substantial contributions to the conception and design of the study, or acquisition of data, or analysis and interpretation of data, drafting the article or revising it critically for important intellectual content, final approval of the version to be submitted.

Conceptualization and Methodology: AMOG, MDRF; Formal analysis: EFM y MDRF; Investigation and resources: ROA, PAGB, OIM; Writing-Original draft: ROA, PAGB, OIM; Writing-Review & editing: AMOG, EFM, MDRF; Visualization: OIM, MDRF; Supervision: AMOG, EFM, MDRF. Project administration: AMOG, MDRF; Funding acquisition: AMOG.

All authors accepted the definitive version of the manuscript and its publication.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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