

HEXACO personality traits, spiritual intelligence, and views on euthanasia among medical students: a moderation analysis

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Abstract

The ethical dilemma of euthanasia presents a significant challenge in medical practice. The attitudes of medical students toward euthanasia can be shaped by a variety of factors, such as their personal beliefs, values, and personality traits. This study explored the intricate relationship between personality traits, as outlined by the model, and medical students' attitudes toward euthanasia, with a particular focus on the potential moderating effect of spiritual intelligence. In this cross-sectional study, 219 medical students from Zahedan, Iran, including 85 males and 134 females, were selected in 2022 using a non-random convenience sampling method. Participants provided socio-demographic information, including age, gender, and medical degree. They were also evaluated using the spiritual intelligence self-report inventory, the 24-item brief HEXACO inventory, and the euthanasia attitude scale (EAS). Data analysis was conducted using SPSS software version 29 and included both descriptive statistics (frequency, mean, and standard deviation) and inferential statistics (independent *t*-test, analysis of variance, Pearson correlation coefficient, and hierarchical linear regression). The findings revealed a significant positive correlation between the personality trait of openness to experience and favorable attitudes toward euthanasia. In contrast, there was a negative correlation between EAS scores and spiritual intelligence, as well as the honesty-humility dimension of personality. Furthermore, regression analysis indicated that spiritual intelligence moderated the relationship between EAS scores and the associated personality traits. The study underscores the importance of understanding how HEXACO personality traits and spiritual intelligence influence medical students' attitudes toward euthanasia. This insight is vital for medical educators and policymakers in creating educational programs that foster critical thinking, empathy, and ethical decision-making in future healthcare professionals. Additionally, this knowledge can guide the formulation of euthanasia policies that respect the diverse viewpoints and values within the medical community.

Introduction

End-of-life care and the cessation of life-sustaining treatment for patients with terminal conditions are among the top ten ethical dilemmas in medicine.¹ Central to this discussion is euthanasia, a term that denotes the deliberate ending of a patient's life to alleviate their suffering.² Research has shown that nearly half of medical students hold a positive attitude toward euthanasia, with over a quarter supporting its legalization, even though it is strictly prohibited in many countries around the world.^{3,4} This diversity in opinions reflects the need for a deeper understanding of medical students' attitudes toward euthanasia. Certainly, understanding the factors

that shape individuals' attitudes toward euthanasia will be crucial for medical professionals, as it can influence their decision-making process and patient care.¹ Nevertheless, medical students' stance on euthanasia is a complex and multifaceted issue that is influenced by various factors, including individual traits and beliefs.⁵ In this respect, recent evidence delves into the correlation between distinct personality characteristics, spiritual acumen, and the attitudes of medical students toward euthanasia.⁴⁻⁷

Impact of personality traits on euthanasia attitudes

The impact of personality traits on medical students' attitudes toward euthanasia is a topic of great significance and interest in the field of medical ethics.⁴⁻⁷ The HEXACO [honesty-humility (H), emotionality (E), extraversion (X), agreeableness (A), conscientiousness (C), and openness to experience (O)] model of personality traits is a comprehensive framework that expands upon the widely known Big Five personality traits (extroversion, agreeableness, conscientiousness, emotional stability, and openness to experience) by including an additional factor known as honesty-humility.⁸ Therefore, this model seems to provide a more nuanced understanding of personality traits and their influence on various attitudes and behaviors. In the context of medical students' attitudes toward euthanasia, it is important to explore how these HEXACO personality traits may play a role. Here, we delve into the influence of these traits on medical students' attitudes toward euthanasia: i) honesty-humility – individuals high in honesty-humility may exhibit a greater sense of ethical responsibility and may be more inclined toward upholding moral principles in their attitudes toward euthanasia; conversely, individuals low in this trait may be more lenient toward euthanasia, prioritizing personal interests over ethical considerations;^{7,8} ii) emotionality – emotional individuals may be more empathetic toward patients' suffering, leading them to support euthanasia as a means of alleviating pain and distress; however, high levels of emotionality may also lead to emotional distress and ethical dilemmas when considering end-of-life decisions;^{7,8} iii) extroversion – extroverted individuals may be more open to discussing and considering different viewpoints on euthanasia, leading to a more nuanced understanding of the ethical implications involved; on the other hand, extroversion may also be associated with impulsivity in decision-making, potentially influencing attitudes toward euthanasia;^{7,8} iv) agreeableness – individuals high in agreeableness may prioritize compassion and empathy in their attitudes toward euthanasia, advocating for patient autonomy and quality of life; conversely, individuals low in agreeableness may prioritize objective criteria such as prognosis and quality of life measures in their decision-making regarding euthanasia;^{7,8} v) conscientiousness – conscientious individuals may approach end-of-life decisions with a sense of duty and responsibility, weighing the ethical implications carefully before forming their attitudes toward euthanasia; however, high levels of conscientiousness may also lead to rigid adherence to moral principles, potentially influencing attitudes toward euthanasia;^{7,8} vi) openness to experience – individuals high in openness to experience may be more receptive to new ideas and perspectives on euthanasia, leading to a more flexible and open-minded approach to end-of-life care; conversely, individuals low in this trait may exhibit a more conservative and traditional stance on euthanasia, prioritizing established norms and values in their attitudes.^{7,8}

Altogether, it seems that the interplay of HEXACO personality traits can significantly influence medical students' attitudes toward euthanasia, shaping their ethical considerations and decision-making processes in end-of-life care. By exploring these influences, researchers and healthcare professionals may obtain a deeper under-

standing of the complex factors at play in shaping individuals' attitudes toward this contentious issue.⁴⁻⁷

Impact of spiritual intelligence on euthanasia attitudes

From a theistic perspective, spiritual intelligence is perceived as the capacity to comprehend oneself and the cosmos from a standpoint that prioritizes the divine rather than the ego or self-focus, thereby aligning one's existence with this understanding. Consequently, spiritual intelligence transcends situational and cognitive boundaries, aiding individuals in perceiving reality without personal biases.⁵ In line with this, Kass and Lenox have deduced that a life enriched by spiritual growth promotes the realization of one's complete human capabilities.⁹ In line with this theory, current studies have shown that individuals with stronger religious convictions are less likely to support euthanasia, particularly for terminally ill patients.^{5,10,11} Religious beliefs play a significant role in how individuals perceive the withdrawal of futile medical care, often equating it to euthanasia.¹² The decision to terminate futile treatment is often viewed as a collaborative process between the patient and the clinician, with the level of acceptance varying based on the individual's religious faith.^{13,14}

Since medical students with higher levels of spiritual intelligence may approach end-of-life issues with greater compassion, empathy, and understanding,¹²⁻¹⁵ we hypothesized that spiritual intelligence can influence medical students' ability to navigate the complexities of ethical dilemmas, such as those related to euthanasia, with sensitivity and nuance. Nonetheless, the influence of spiritual intelligence on medical students' attitudes toward euthanasia is a complex and multifaceted issue that requires careful consideration.

The complex interplay of these factors

Based on prior research, the relationship between HEXACO personality traits, spiritual intelligence, and attitudes toward euthanasia is intricate and multifaceted.⁴⁻⁷ For example, the impact of HEXACO personality traits on medical students' attitudes toward euthanasia may not be straightforward. This is where the moderating role of spiritual intelligence comes into play.⁵ Spiritual intelligence may influence how medical students interpret and reconcile their personal beliefs and values with the ethical dilemmas surrounding euthanasia. Accordingly, medical students with high spiritual intelligence may engage in deep introspection and contemplation, leading to a more nuanced and balanced perspective on euthanasia.¹²⁻¹⁵ They may be more inclined to consider the holistic well-being of patients, including their spiritual and existential suffering when forming their attitudes toward euthanasia.¹²⁻¹⁵ On the other hand, medical students with low spiritual intelligence may struggle to navigate the complexities of euthanasia and may rely more heavily on their HEXACO personality traits when forming their attitudes.⁵ So, it seems that understanding medical students' stance on euthanasia requires a nuanced examination of personality traits, spiritual intelligence, and the broader sociocultural context in which these attitudes develop. By understanding the complex interplay between these variables, medical professionals can approach end-of-life care with greater sensitivity, compassion, and ethical discernment.

Study's objectives

The present study aimed to investigate the complex relationship between personality traits, as conceptualized by the HEXACO model, and medical students' attitudes toward euthanasia, considering spiritual intelligence as a potential moderating factor.

Materials and Methods

Population, sample size, and sampling method

In this analytical study, carried out in July 2022 within the urban confines of Zahedan, Iran, a cohort of 204 individuals was initially chosen as the sample size. This figure was derived using G*Power software version 3.1.9.7 (Universität Düsseldorf, Germany) to achieve a statistical power of 95% with an α level of 0.05, an effect size of 0.10, and considering five potential predictors. Anticipating a dropout rate of 10%, the sample size was adjusted to 224 participants.^{5,16} The selection of participants involved medical students from Zahedan University of Medical Sciences, who were recruited through convenience sampling techniques. Eligibility for inclusion required active participation in medical training at various levels, including traineeship, internship, or residency programs. The exclusion criteria encompassed any acute physical or mental health conditions and incorrect completion of the study questionnaires. Out of the original cohort, 219 medical students provided properly completed questionnaires [mean age: 25.40 years, standard deviation of age: 3.05 years, with 85 males (38.8%) and 134 females (61.2%)] (Table 1). The study also reported a marginal sampling error of 1%, which suggests the adequacy of the sample size for the research objectives.¹⁷

Ethical considerations

The present study received the endorsement of the Ethics Committee at Zahedan University of Medical Sciences, as indicated by the approval ID: IR.ZAUMS.REC.1400.321. Furthermore, adherence to the Helsinki Declaration was ensured by informing participants that their involvement was optional and that they retained the right to withdraw from the study at any point without consequence.¹⁸ Moreover, all individuals were guaranteed that their privacy would be strictly maintained.

Table 1. Participants' demographic information (n=219).

Variables	
Age, M \pm SD; range	25.40 \pm 3.05; 20-43
Gender, n (%)	
Male	85 (38.8)
Female	134 (61.2)
Medical degree, n (%)	
Traineeship	96 (43.8)
Internship	91 (41.6)
Residency	32 (14.6)

M, mean; SD, standard deviation.

Table 2. The mean, standard deviation, skewness, and kurtosis of study variables (n=219).

Variables	M \pm SD	Skewness	Kurtosis
SI	48.04 \pm 11.90	0.08	1.58
Honesty-humility	12.30 \pm 2.56	0.26	-0.52
Emotionality	12.24 \pm 2.02	0.07	0.16
Extroversion	10.67 \pm 2.20	0.12	-0.27
Agreeableness	11.41 \pm 1.99	0.11	-0.25
Openness	12.67 \pm 2.18	-0.00	-0.00
Conscientiousness	11.70 \pm 2.55	-0.01	-0.40
EAS	62.79 \pm 11.17	-0.33	0.67

M, mean; SD, standard deviation; EAS, euthanasia attitude scale; SI, spiritual intelligence. The skewness and kurtosis of the study variables fall within the range of -2 to 2, indicating that the distribution of the variables is normal with respect to both skewness and kurtosis.

Study instruments

For this investigation, the Persian adaptations of the following instruments were utilized, with a Cronbach's α of 0.70 or higher indicating satisfactory internal consistency.¹⁹

Spiritual intelligence self-report inventory

The 24-item inventory was scored using a 5-point Likert scale ranging from 0 to 4.²⁰ The overall spiritual intelligence self-report inventory (SISRI) scale has been found to have credible validity and reliability within the Iranian context, with a Cronbach's α coefficient of 0.91.²¹ In our research, the Cronbach's α coefficient for the complete SISRI scale was determined to be 0.89.

Brief HEXACO inventory

This inventory encompasses 24 items that evaluate six personality traits: honesty-humility, emotionality, extroversion, agreeableness, conscientiousness, and openness to experience, with each trait represented by four items. Brief HEXACO inventory (BHI) responses are measured on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).⁸ The BHI's reliability and validity in Iran have been affirmed by Basharpour *et al.* In our current research, Cronbach's α coefficient for the domain of openness to experience was recorded at 0.80.²²

Euthanasia attitude scale

The euthanasia attitude scale (EAS), in its Persian form, includes 20 items rated on a 5-point Likert scale from 1 to 5. Elevated scores on the EAS suggest a more favorable stance toward euthanasia, with the aggregate ordinal score ranging from 20 to 100.²³ Aghababaei has documented a Cronbach's α of 0.88 for the total EAS scale in Iran.²⁴ Our study yielded a Cronbach's α coefficient for the total EAS scale of 0.90.

Statistical analysis

In this study, we investigated the relationship between individuals' attitudes toward euthanasia, which served as the dependent variable, and their HEXACO personality traits, which were the independent variables. Additionally, spiritual intelligence was examined as a potential moderating factor in this relationship. Other factors, such as age, gender, and medical degree, were included as control variables. The data were analyzed using both descriptive statistics (frequency, mean, and standard deviation) and inferential statistics (independent *t*-test, analysis of variance, and Pearson correlation coefficient to assess significance in light of the skewness and kurtosis of the study variables) (Table 2) through SPSS software version

29 (IBM, Armonk, NY, USA). Hierarchical linear regression was employed to investigate how spiritual intelligence might alter the influence of HEXACO personality traits on medical students' views on euthanasia. This regression analysis was conducted in four sequential steps: i) by adding demographic control variables; ii) by including the average scores for HEXACO personality traits; iii) by considering attitudes toward euthanasia; and iv), by introducing interaction terms between these sets of scores. Throughout the analysis, a threshold for statistical significance was set at $p < 0.05$.

Results

The results shown in Table 3 indicate that there is no significant difference in the mean EAS scores when comparing gender and medical degree. Table 4 reveals a significant positive correlation between EAS scores and two personality dimensions, including openness to experience and extroversion. Conversely, there is a significant negative correlation between EAS scores and several factors, including spiritual intelligence, honesty-humility, agreeableness, and conscientiousness.

To assess the moderating effect of spiritual intelligence on the relationship between HEXACO personality traits and EAS scores, a hierarchical linear regression was conducted. Initially, demographic variables were entered into the analysis, as shown in Table 5. Next, spiritual intelligence was added to the model while controlling for the effects of demographic variables. In model 2, the coefficient of determination (R^2) was found to be 0.22, indicating that spiritual intelligence explains 22% of the variance in EAS scores. The significance of this model, as determined by the Fisher test, suggests that spiritual intelligence is associated with EAS among medical students ($\Delta R^2 = 0.21$, $p < 0.001$).

Model 3 yielded an R^2 of 0.41, meaning that openness to experience, honesty-humility, extroversion, agreeableness, and conscientiousness together account for 41% of the variance in EAS scores. The Fisher test again confirmed the significance of this model, indicating

these personality traits are related to EAS among medical students ($\Delta R^2 = 0.19$, $p < 0.001$).

In the final stage of analysis, a two-way interaction term was included. Model 4 showed an R^2 of 0.46, suggesting that 46% of the variance in EAS is explained by the predictor variables and their interactions. The Fisher test demonstrated that the interactive effects of "honesty-humility \times spiritual intelligence" and "openness to experience \times spiritual intelligence" significantly influence EAS scores among medical students ($\Delta R^2 = 0.04$, $p = 0.003$).

Discussion

To the best of our knowledge, the current study is the first to explore the moderating role of spiritual intelligence in the relationship between the HEXACO dimensions and attitudes toward euthanasia among medical students. The final report and summary of findings indicated a substantial positive association between EAS scores and openness to experience. On the other hand, a notable negative association existed between EAS scores and two factors, such as spiritual intelligence and the honesty-humility dimension. The results from the regression analysis also supported the moderating role of spiritual intelligence in the relationship between EAS and the two aforementioned personality traits. These outcomes are consistent with the findings of Ristic *et al.*,⁴ Khosravi,⁵ Wasserman *et al.*,⁶ and Aghababaei *et al.*⁷ As mentioned before, when examining the factors that influence one's perspective on euthanasia, personality traits play a significant role.⁴⁻⁷ Based on our findings, two specific traits that have been linked to attitudes toward euthanasia are openness to experience and honesty-humility. Openness to experience is a personality trait that reflects an individual's willingness to embrace new ideas, concepts, and experiences.⁵ People who score high in openness to experience tend to be imaginative, curious, and open-minded.⁵ In the context of euthanasia, individuals with high openness to experience may be more inclined to consider alternative approaches to

Table 3. Comparison of euthanasia attitude scale mean scores by gender and medical degree (n=219).

Variables	EAS (M \pm SD)	Testa
Gender		t=0.63
Male	63.40 \pm 10.79	
Female	11.42 \pm 0.98	
Medical degree		F=1.71
Traineeship	64.21 \pm 12.82	
Internship	61.20 \pm 9.45	
Residency	63.03 \pm 10.01	

EAS, euthanasia attitude scale; M, mean; SD, standard deviation; astatistical analyses applied the independent t-test and analysis of variance.

Table 4. Correlation matrix of study variables (n=219).

Variables	1	2	3	4	5	6	7	8
1. SI	-							
2. Honesty-humility	0.30***	-						
3. Emotionality	0.06	0.09	-					
4. Extroversion	0.27***	0.30***	0.01	-				
5. Agreeableness	0.25***	0.14*	-0.09	-0.31***	-			
6. Openness	-0.03	0.03	0.03	0.07	-0.04	-		
7. Conscientiousness	0.23**	0.38***	-0.02	-0.27***	0.13	0.06	-	
8. EAS	-0.46***	-0.39***	0.03	0.38***	-0.34***	0.15*	-0.37***	-

EAS, euthanasia attitude scale; SI, spiritual intelligence; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

end-of-life care, including euthanasia. They may be more receptive to exploring the ethical and moral dimensions of this issue, as well as the potential benefits it could offer to those suffering from severe pain or incurable diseases.⁵ On the other hand, honesty-humility is a personality trait that encompasses sincerity, fairness, and the avoidance of exploitation.⁸ Individuals with high levels of honesty-humility prioritize honesty and integrity in their interactions with others.^{7,8} In relation to euthanasia, individuals with high honesty-humility may approach this topic with caution and a focus on ensuring that any decisions made are based on genuine compassion and concern for the well-being of the patient. They may emphasize the importance of maintaining transparency, seeking multiple perspectives, and adhering to strict ethical guidelines when considering euthanasia as an option.⁷ These findings under-

score the pivotal role that personality traits play in shaping attitudes toward euthanasia, transcending cultural boundaries.⁴⁻⁷ This is a noteworthy aspect of our work as it evaluates how sociological factors influence one's stance on euthanasia, shedding light on further variability.^{6,7} While variables at the group level are useful for discerning patterns across cultures, a more nuanced comprehension of the variances and parallels emerges from examining individual personality characteristics. To put it differently, scrutinizing elements such as openness to experience and levels of honesty-humility provides a clearer picture of the diversity in perspectives on euthanasia, even among populations where strong social conventions oppose it.^{6,7} However, it is important to note that while personality traits can provide insights into an individual's predisposition toward euthanasia, they do not dictate one's stance on the

Table 5. Hierarchical linear regression to identify factors associated with the acceptance of euthanasia among medical students (n=219).

Explanatory variables	B	SE	β	95% CI
Model #1: demographic explanatory variables				
Summary: $R^2=0.00$, adjusted $R^2=-0.00$, $F_{(3, 215)}=0.49$; $\Delta R^2=0.00$, $\Delta F_{(3, 215)}=0.49$				
Age	0.01	0.24	0.00	[-0.47, 0.50]
Gender	-0.96	1.55	-0.04	[-4.02, 2.10]
Medical degree	-1.11	1.07	-0.07	[-3.23, 1.00]
Model #2: demographic and SI explanatory variables				
Summary: $R^2=0.22$, adjusted $R^2=0.20$, $F_{(4, 214)}=15.36^{***}$; $\Delta R^2=0.21$, $\Delta F_{(1, 214)}=59.56^{***}$				
Age	-0.10	0.22	-0.03	[-0.54, 0.32]
Gender	-0.91	1.37	-0.04	[-3.63, 1.80]
Medical degree	-0.57	0.95	-0.03	[-2.45, 1.30]
SI	-0.43***	0.05	-0.46	[-0.55, -0.32]
Model #3: demographic, SI, and HEXACO personality traits explanatory variables				
Summary: $R^2=0.41$, adjusted $R^2=0.39$, $F_{(9, 209)}=16.62^{***}$; $\Delta R^2=0.19$, $\Delta F_{(5, 209)}=13.92^{***}$				
Age	-0.09	0.19	-0.02	[-0.48, 0.29]
Gender	-1.99	1.22	-0.08	[-4.41, 0.42]
Medical degree	0.10	0.85	0.00	[-1.58, 1.79]
SI	-0.26***	0.05	-0.28	[-0.37, -0.15]
Honesty-humility	-0.74**	0.26	-0.17	[-1.27, -0.21]
Extroversion	0.68*	0.30	0.13	[0.08, 1.27]
Agreeableness	-1.00**	0.31	-0.17	[-1.62, -0.37]
Openness	0.77**	0.27	0.15	[0.23, 1.31]
Conscientiousness	-0.90**	0.25	-0.20	[-1.41, -0.39]
Model #4: demographic, SI, HEXACO personality traits, and two-way interactions explanatory variables				
Summary: $R^2=0.46$, adjusted $R^2=0.42$, $F_{(14, 204)}=12.62^{***}$; $\Delta R^2=0.04$, $\Delta F_{(5, 204)}=3.58^{**}$				
Age	-0.08	0.19	-0.02	[-0.46, 0.30]
Gender	-1.98	1.20	-0.08	[-4.36, 0.40]
Medical degree	-0.17	0.83	-0.01	[-1.83, 1.47]
SI	-1.16**	0.42	-1.24	[-1.99, -0.33]
Honesty-humility	-3.54**	1.16	-0.81	[-5.83, -1.24]
Extroversion	0.51	1.23	0.10	[-1.91, 2.93]
Agreeableness	-0.96	1.15	-0.17	[-3.23, 1.30]
Openness	1.99*	0.92	0.39	[0.16, 3.81]
Conscientiousness	-0.33	1.15	-0.07	[-1.94, 2.60]
Honesty-humility \times SI	-0.05*	0.02	-1.14	[-0.10, -0.01]
Extroversion \times SI	-0.02	0.02	-0.38	[-0.06, 0.02]
Agreeableness \times SI	-0.00	0.02	-0.00	[-0.04, 0.04]
Openness \times SI	-0.06**	0.02	-0.98	[-0.10, -0.02]
Conscientiousness \times SI	-0.02	0.02	-0.52	[-0.07, 0.01]

SI, spiritual intelligence; * $p<0.05$; ** $p<0.01$; *** $p<0.001$.

matter. According to the findings documented in references,¹²⁻¹⁵ there was a notably inverse relationship between spiritual intelligence and the acceptance of euthanasia. While the SISRI serves as a sophisticated tool for gauging spiritual intelligence, it also exhibits a strong link with levels of religious commitment.²⁵ This correlation mirrors the broadly negative stance on euthanasia shared by both Islamic and Christian beliefs.^{7,25} Nonetheless, it is possible that the SISRI also captures elements of pro-social behavior, as evidenced by the diminished importance of openness to experience and honesty-humility when spiritual intelligence is factored into the equation during multiple regression analysis.⁶ Consequently, individuals who are more engaged in religious practices tend to register lower on openness to experience scales while simultaneously scoring higher on honesty-humility.^{7,26} Alternatively stated, through the enhancement of self-awareness and the attainment of an elevated level of consciousness, along with a deepened sense of empathy and dedication to core human principles, spiritual intelligence can assist individuals in selecting a purpose in life that holds social significance and in making sophisticated choices amid conditions characterized by stress, intricacy, and rapid transformation.^{6,7,25,26}

Limitations and future directions

The current investigation was subject to several constraints. Initially, the study's focus on a cohort of medical students implies that extrapolating the findings to a broader population should be approached with caution. Given that medical students may possess more progressive views, it is anticipated that attitudes toward euthanasia in the wider populace may diverge from those observed in this study. Consequently, future research should explore this issue within a more representative demographic. Another limitation was the absence of random sampling, leading to potential selection bias. This could be mitigated by employing more rigorous sampling techniques to enhance the applicability of the findings to the intended demographic. Additionally, the cross-sectional nature of the study design limits its ability to establish causality. Addressing this would require the implementation of longitudinal studies. A further challenge was the potential for recall bias introduced by reliance on self-reported data. This issue might be addressed by conducting personal interviews with participants. Moreover, given that euthanasia is not legal in Iran, it is difficult to ascertain whether attitudes reflect a genuine openness to the concept or are shaped by moral perspectives on euthanasia itself. Therefore, while the results may offer insights relevant to Islamic nations where religious laws prevail, they may not be as applicable to secular societies. Lastly, it is essential to consider additional variables that may shape medical students' attitudes toward euthanasia. These include cultural influences, the presence of psychiatric comorbidities such as depression, and levels of death anxiety.^{6,7,27,28}

Practical implications

Understanding the interplay between HEXACO personality traits and spiritual intelligence in shaping medical students' attitudes toward euthanasia is crucial for medical educators and policymakers. By identifying the factors that influence these attitudes, educational interventions can be developed to promote critical thinking, empathy, and ethical decision-making skills among future healthcare professionals. Additionally, policymakers can use this knowledge to inform the development of guidelines and regulations surrounding euthanasia, ensuring that they reflect the diverse perspectives and values of medical students and healthcare professionals.^{29,30}

Conclusions

In conclusion, the study on medical students' attitudes toward euthanasia highlights the intricate and diverse perspectives within the medical community regarding end-of-life care. The interplay of HEXACO personality traits and spiritual intelligence significantly influences medical students' ethical considerations and decision-making processes in relation to euthanasia. Understanding the impact of spiritual intelligence on euthanasia perspectives underscores the importance of personal beliefs and values in shaping ethical decision-making in healthcare. Additionally, the role of psychological factors such as depression and social support cannot be overlooked in shaping individuals' beliefs about euthanasia. Overall, exploring the influence of personality traits, spiritual intelligence, and psychological factors provides valuable insights into the complex nature of medical students' attitudes toward euthanasia.

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