Research Paper

Predicting Moral Reasoning With Spiritual Well-being and Personality: The Mediating Role of Empathy in Physicians and Nurses

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ABSTRACT

Objective: The COVID-19 pandemic has created many problems. This paper aims to predict moral reasoning through spiritual health and personality via the mediating role of empathy in physicians and nurses.

Methods: The current research is a cross-sectional analysis conducted on 320 physicians and nurses working in hospitals' COVID-19 wards. We used the available sampling method, and the research tools included the brief form of personality inventory for The Diagnostic and Statistical Manual of Mental Disorders, fifth edition (Krueger et al. 2012), the spiritual well-being scale (Dehshiri 2009), the defining issue test-2 (Rest et al. 1986), and the interpersonal reactivity index (Davis 1983).

Results: The results of the current investigation indicated that spiritual well-being has a positive and significant effect on empathy ($P<0.0001$, $\beta=0.236$). Empathy has a positive and significant correlation with moral reasoning ($P=0.032$, $\beta=0.117$). And finally, the moral reasoning variable in the current model was calculated at 0.019.

Conclusion: The current study shows that empathy can predict moral reasoning. Meanwhile, understanding the feelings of others can be more useful in judgment and decision-making. In addition, spiritual health can play an important role in empathy.

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Highlights

- The COVID-19 pandemic has created many problems.
- Personality traits are one of the influential components of moral reasoning and decision-making;
- Empathy can predict moral reasoning.

Plain Language Summary

The COVID-19 pandemic is a significant crisis affecting everyone, including the healthcare staff who are one of the critical groups in this pandemic. The pandemic highlighted many of the complex ethical issues that the healthcare staff face. Personality traits are influential in moral reasoning and decision-making and Spirituality is one of the fundamental components of physical and mental health and well-being; in short, it is assumed that personality can affect empathy.

1. Introduction

An acute respiratory syndrome was caused by the novel coronavirus (COVID-19) in December 2019 in Wuhan, China (Wu et al., 2020). The COVID-19 pandemic is a significant crisis affecting everyone, including the healthcare staff who are one of the critical groups in this pandemic (Lancet, 2020). In addition, several factors, such as the lack of protective equipment, long working hours, risk of infection, discrimination, physical fatigue, and separation from family put heavy pressure on healthcare providers (Rajkumar, 2020; Jakovljevic et al., 2020). The COVID-19 pandemic highlighted many of the complex ethical issues that the healthcare staff face in caring for patients (Ita, 2020). Lawrence Kohlberg defines moral reasoning as an internal psychological structure that affects the performance of individuals in situations where moral claims conflict with each other (Kohlberg, 1969).

Personality traits are one of the influential components of moral reasoning and decision-making (Bartels & Pizarro, 2011). A recent study on ethics has demonstrated essential individual differences in moral judgment (Noser et al., 2015). Personality traits reflect specific behavioral patterns that arise from the interaction of psychological mechanisms, thoughts, and emotions (McAdams et al., 1995). The outcomes indicated that pathological personality traits are different in ethics (Noser et al., 2015). Also, the personality inventory for the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (PID-5) reports this issue with numerous adverse outcomes, including poor interpersonal performance (Southard et al., 2015), antisocial behavior (Hopwood et al., 2013), and psychotic tendencies to self-harm (Strickland et al., 2013). However, these connections vary depending on different situations. For example, Southard et al. (2015) found that people with high levels of inhibition have interpersonal, cold, and non-cooperative styles. At the same time, people with high levels of psychosis have weak interpersonal relationships that are associated with low moral values. Additionally, people with high levels of neuroticism are very anxious and sensitive in interpersonal relationships, resulting in more important concerns about protecting themselves and others from harm (Oxley et al., 2008). It is also assumed that personality can affect empathy (Abe et al., 2018).

Empathy includes the ability to understand others as well as their views and concerns, including desires and what is important to them (Hofmeyer & Taylor, 2021; Singer & Klimecki, 2014). Empathy is a vital component in the successful treatment of health problems during communication between the patient and the physician; therefore, empathetic healthcare providers are more likely to establish satisfactory and trust-based relationships and bring about better clinical results (Hojat et al., 2011); it is their empathetic and emotional ability that may affect their personality (Abe et al., 2018; Jolly, 2005). On the other hand, research indicates that spiritual well-being can increase empathy in physician-patient relationships (Hamidia et al., 2020). Spirituality is one of the fundamental components of physical and mental health and well-being (Burkhart & Schmidt, 2012). In addition, the dimensions of religiosity and spirituality have been associated with various concepts of mental health and disease. An essential aspect of spirituality is a function of spiritual well-being, a concept coined by Ellison and Smith (1991) which is additionally performed in the management of stressful events (Clark & Hunter,

2019). In an investigation conducted by 40 nurses in an emergency department, the results indicated that empathy and well-being are related. Nurses with high psychological well-being display more empathy than patients (Bourgault et al., 2015).

In their study, "Ethical Reasoning", Kuilman et al., describe personality traits and the lack of moral participation (2019) and study 67 nurses and 88 Dutch physician assistants. Their results indicate that stable personality traits are direct predictors of moral reasoning (Kuilman et al., 2019). The study of Yuguero et al. (2019) aimed to determine the relationship between moral reasoning and empathy in a group of 193 medical students. This study indicated the relationship between moral reasoning, moral sensitivity, and empathy. Given the importance of personality and moral reasoning, healthcare providers' decision-making (Hojat et al., 2013), empathy, and emotional skills to understand and express emotions when providing care for their patients, and given the stressful circumstances caused by the COVID-19 outbreak, spiritual well-being can be used as a coping strategy (Kasapoğlu, 2020). In this regard, this new study considers the negative consequences along with the physical and psychological effects of COVID-19 on healthcare providers (Xiang et al., 2020). Accordingly, this study is conducted to investigate the relationship between personality, moral reasoning, and spiritual well-being with the mediating role of empathy in physicians and nurses.

2. Materials and Methods

The current study has a cross-sectional design. The statistical population includes all physicians and nurses working in the COVID-19 sections of hospitals of Shahid Beheshti University of Medical Sciences (Ayatollah Taleghani, Imam Hossein (AS), 15 Khordad, Tajrish's Martyr, Akhtar, Shahid Labbafinejad, Shahid Modarres, Torafeh, Mofid, Loghman Hakim, Masih Daneshvari, Mahdiyeh, Shahid Mofateh Varamin, Pakdasht's Martyr, Ayatollah Ashrafi Esfahani, and Sevom-e Shaban Damavand). We used the available sampling method to select the sample. The free statistical calculator software was used to calculate the sample size and the number of samples was obtained at 320. After screening, 5 samples were removed from the analysis because of being absent. We entered the following measures into the software: the effect size of 0.3, power of 0.8, α of 0.5, in addition to 17 hidden variables, and 112 observed variables (Soper, 2017).

The collected data included demographic and quantitative information that was gathered using paper-based and online questionnaires. After selecting the sample and obtaining their consent letter to cooperate in the research, the following tools were used: demographic characteristics questionnaire, PID-5-BF-adult, defining issue test-2, interpersonal reactivity index, and the spiritual welfare scale. The inclusion criteria for the participants were being physicians or medical students (year 5 and above), having an associate degree or higher in nursing, providing a consent letter to participate in the research, no severe physical or mental illness (according to doctors and nurses), no history of concussion, no hospitalization in psychiatric centers, and no addiction. Meanwhile, the exclusion criteria were dissatisfaction to participate in the research. To analyze the structural equation model, structural equation model tests were performed using the SPSS software, version 24, and the PLS software, version 3.

Study instruments

Personality Inventory for The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition-Adul. The adult version of PID-5, developed by Krueger et al. (2012) has 25 items about self-assessment and measures personality disorders in adults with 18 years of age or higher. This scale measures five personality traits, including negative excitement, failure, opposition, inhibition, and psychosis. Krueger et al. (2012) examined its psychometric properties in standard and patient population samples and reported the internal consistency of its scales from moderate to high (0.72 to 0.95) with an average α of 0.86 (Krueger et al., 2012). In Iran, according to the results of Abdi and Chalabianlou's research, the reliability of the Cronbach α coefficient for the internal consistency of the questionnaire ranged from 0.83 to 0.89, and the retest coefficients ranged from 0.77 to 0.87 for subtests. This is the optimal reliability of the Persian version of this questionnaire (Abdi, 2017).

Defining Issue Test-2

The defining issue test-2 was designed by Rest et al. and is used to assess the level of moral reasoning. It includes stories that present dilemmas or moral riddles to adults (Rest, 1986). Moreover, after each story, there are 12 four-choice questions that the test taker should rate from nonsignificant or insignificant to very important (Rest, 1986). The reliability of this test via the Cronbach α method in a study by Rest et al. over 20 years ranged from 0.76 to 0.80 (Rest, 1986). In Iran, to determine the validity of the test, in Ghiasizade's study, which examined the growth of moral judgment of female students by calculating the correlation between the moral reasoning test and the children's moral judgment test, the validity was obtained at 0.68 (Ghyasizadeh, 2012).

Interpersonal Reactivity Index

The interpersonal reactivity index scale was designed by Davis in 1983 to measure interpersonal behaviors (Jonason et al., 2013). The Cronbach α coefficient of this index was obtained ranging from 0.75 to 0.82 (Jonason et al., 2013). Allah Qalilu obtained the Cronbach α coefficient and the reliability coefficient of this index by retesting substance abusers and ordinary people at 0.77 and 0.76, respectively (Nagamitsu et al., 2015).

Spiritual Well-Being Scale

The spiritual well-being scale was designed by Dehshiri (2009) based on the model proposed by the National Association Between Religions (1975) among students of universities in Tehran City, Iran. This questionnaire includes 40 questions and has 4 subscales in the following order: communication with God, communication with self, communication with nature, and communication with others (Dehshiri et al., 2008). Each subscale has 10 questions and by adding the scores of 40 questions, the total score of spiritual well-being is acquired (Dehshiri et al., 2008). Higher total scores indicate higher spiritual well-being (Dehshiri et al., 2008). The Cronbach α coefficient of the whole questionnaire was obtained at 0.94 and the α coefficient of the subscales were 0.93, 0.92, 0.91, and 0.85 respectively (Dehshiri et al., 2008).

Data analysis

The IBM SPSS software, version 24, and the PLS software, version 3 were used to analyze the data. In addition, the data were analyzed via structural equation models.

3. Results

Demographic characteristics

A total of 320 individuals participated in the study, of which 5 persons were excluded from the research because of being absent. Among the respondents, 36.5% (n=115) were male, 63.5% (n=200) were female, 91.4% (n=288) were single, and 8.6% (n=27) were married. Meanwhile, 52.7% (n=166) were physicians and 47.3% (n=140) were nurses.

Descriptive data

Descriptive data showed that moral reasoning was not normal with a minimum value of 0.1000, maximum of 0.7560, an Mean±SD of 0.13±0.09; in addition, the skewness and kurtosis were not in the range of -3 to 3 and, therefore, these two variables were not normal. Spiritual well-being was normal with a minimum value of 69, a maximum of 144, an average of 102.4921, and SD of 14.95202; additionally, the skewness and kurtosis were in the range of 3- to 3 and normal. Personality was normal with a minimum value of 23, maximum of 61, mean of 94.84, and SD of 44.5048; also, the skewness and kurtosis were in the -3 to 3 range and normal. Finally, empathy was normal with a minimum value of 63, maximum of 127, Mean±SD of 94.84±12.16; also, the skewness and kurtosis were in the -3 to 3 range and normal (Table 1).

Reflective outer model test measurements

Before performing the validity and reliability tests of the structure and the qualitative evaluation of the external model, as the main task of the model, it was first modified in the form of the initial homogeneity test.

The external load test was used for homogeneity, in which the findings showed that question 37 of spiritual well-being and question 17 of the personality questionnaire for PID-5-BF had a factor load of less than 0.65; accordingly, they were removed from the model, and the model was modified.

Divergence validity

To evaluate the validity of cross-load divergence, 3 cross-loading tests, namely Fornell, Larker, and HTMT were used. They showed that the divergent validity of the questions of each variable was established in comparison with the questions of the other variables. Fornell and Larker tests showed that the mean root of variance extracted from each variable was greater than the correlation of that variable with other variables. Meanwhile, HTMT showed that all pairs of variables had a multivariate ratio of less than 1. Based on the results, the divergent validity test of the research model was confirmed; however, it had structural validity because of convergent validity.

Outer model test

The CV com test was used to evaluate the quality of the external model. All CV com values of the variables were much higher than 0.35; therefore, the quality of the external model was satisfactory (Table 2).

Inner model quality

Table 1. Descriptive information of the variables

Variables	n	Min	Max	Mean		SD	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	SE	Statistic	Statistic	SE	Statistic	SE
Moral reasoning	315	0.1000	0.7560	0.220231	0.0053157	0.0943449	2.064	0.137	6.739	0.274
Spiritual well-being	315	69.00	144.00	102.4921	0.84245	14.95202	0.820	0.137	-0.196	0.274
Personality	315	23.00	61.00	44.5048	0.39575	7.02379	0.026	0.137	-0.608	0.274
Empathy	315	63.00	127.00	94.8476	0.68548	12.16614	0.164	0.137	-0.232	0.274
Communication with God	315	12.00	48.00	24.4254	0.58870	10.44839	1.296	0.137	0.181	0.274
Communication with self	315	13.00	48.00	23.9746	0.59530	10.56551	1.232	0.137	-0.157	0.274
Communication with others	315	16.00	47.00	36.0063	0.46627	8.27551	-1.059	0.137	-0.193	0.274
Communication with nature	315	11.00	49.00	18.0857	0.54539	9.67969	1.846	0.137	2.124	0.274
Negative affect	315	1.00	15.00	8.9905	0.22812	4.04866	-0.150	.137	-1.399	0.274
Detachment	315	0.00	15.00	8.9429	0.28791	5.10993	-0.316	0.137	-1.722	0.274
Antagonism	315	1.00	15.00	11.2698	0.13048	2.31587	-1.137	0.137	2.620	0.274
Disinhibition	315	0.00	15.00	7.3587	0.23821	4.22778	0.322	0.137	-1.329	0.274
Psychoticism	315	1.00	15.00	7.9429	0.20432	3.62624	-0.082	0.137	-1.024	0.274
Perspective-taking	315	10.00	33.00	24.6222	0.30495	5.41231	-0.103	0.137	-0.751	0.274
Fantasy	315	9.00	33.00	21.1968	0.35103	6.23014	0.226	0.137	-0.930	0.274
Empathic concern	315	11.00	33.00	26.4159	0.31555	5.60042	-0.768	0.137	-0.639	0.274
Personal distress	315	9.00	33.00	22.6127	0.30193	5.35871	-0.069	0.137	-0.477	0.274
Valid n (listwise)	315	-	-	-	-	-	-	-	-	-

Abbreviations: SD, standard deviation; SE, standard error

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The test quality of the internal model cv red showed 0.004 for moral reasoning and the result was desirable; however, it was not the same for all variables (Table 3).

Hypothesis testing

The findings showed that empathy had a positive and significant effect on moral reasoning (P=0.032) and the intensity of this effect was β=0.117. In addition, spiritual well-being had a significant effect on empathy (P<0.000), thus the hypothesis was confirmed and the intensity of this effect was β=0.236. Meanwhile, spiritual well-being had no significant effect on moral reasoning (P=0.294). The results also showed that personality had no significant effect on empathy (P=0.136) and it had no significant effect on moral reasoning (P=0.309) (Table 4).

This study aimed to determine the prediction accuracy or the variance explained by the endogenous variables of the conceptual model. In the present study, there is an endogenous variable and the value of R2 in the present model was 0.019. Accordingly, all exogenous variables can predict the dependent variables because of the 3 weak fold values (Table 5).

4. Discussion

This study aimed to predict moral reasoning through the variables of spiritual well-being and personality with the mediation of empathy in a sample of Iranian physicians and nurses. Thus, the empathy variable was evaluated as a mediating variable, spiritual welfare and personality as independent variables, and moral reasoning as a dependent variable in the conceptual model

Table 2. Construct cross-validated communality

Variables	SSO	SSE	Q^2=1–SSE/SSO
Empathic concern	1902.000	940.044	0.506
Personal distress	2219.000	1283.114	0.422
Antagonism	1268.000	703.276	0.445
Communication with God	3170.000	1118.872	0.647
Communication with nature	3170.000	1042.373	0.671
Communication with others	2853.000	1619.395	0.432
Communication with self	3170.000	1117.619	0.647
Detachment	1585.000	481.795	0.696
Disinhibition	1585.000	605.532	0.618
Empathy	317.000	-	1.000
Fantasy	2219.000	1052.689	0.526
Moral reasoning	317.000	-	1.000
Negative affect	1585.000	629.454	0.603
Personality	317.000	-	1.000
Perspective-taking	2219.000	1056.112	0.524
Psychoticism	1585.000	700.728	0.558
Spiritual well-being	317.000	-	1.000

PRACTICE in CLINICAL PSYCHOLOGY

via structural equation modeling. In the current model, predictor variables could predict moral reasoning with 0.019. The results also showed that empathy had a positive and significant effect on moral reasoning. Another part of the study demonstrated that spiritual well-being had a positive and significant effect on empathy. However, no effect of personality was found on empathy and moral reasoning. In addition, spiritual well-being did not have a positive and significant effect on moral reasoning. The first research finding showed that empathy did not have a positive and significant effect on moral reasoning. Neumann et al. demonstrated that empathy is significantly reduced during medical studies when entering the clinical practice phase and by increasing contact with patients. One possible explanation may be that exposure to illness and death increases the intern's vulnerability (Neumann et al., 2011).

The other key factors in reducing empathy among medical students and nurses are burnout, reduced quality of life, and depression (Neumann et al., 2011). Another study found that cognitive empathy largely explains the indirect relationship between moral sensitivity and social behavior, especially in decision-making and moral responsibility. Moral sensitivity and empathy among physicians and nurses help in understanding situations and decisions that benefit patients (Suazo et al., 2020). On the other hand, Yuguero et al. demonstrated a significant correlation between moral reasoning, moral sensitivity, and the lack of progress of these two variables in the recent years of medical teaching (Yuguero et al., 2019). Empathy is a form of moral emotions (de Oliveira-Souza & Moll, 2019), and based on the research background and findings of the present study, as empathy reduces, moral reasoning reduces as well.

The second finding of the present study demonstrated that spiritual well-being had a positive and significant effect on empathy. This finding is consistent with a study by hamidia et al. (Hamidia et al., 2020). The result of their research demonstrated a strong and positive relationship between students' perspectives, clinical empa-

Table 3. Construct cross-validated redundancy

Variables	SSO	SSE	Q^2=1–SSE/SSO)
Empathic concern	1902.000	1612.424	0.152
Personal distress	2219.000	1850.981	0.166
Antagonism	1268.000	1213.703	0.043
Communication with God	3170.000	1813.392	0.428
Communication with nature	3170.000	3074.549	0.030
Communication with others	2853.000	2599.041	0.089
Communication with self	3170.000	1900.941	0.400
Detachment	1585.000	1065.393	0.328
Disinhibition	1585.000	1064.587	0.328
Empathy	317.000	301.295	0.050
Fantasy	2219.000	1794.204	0.191
Moral reasoning	317.000	315.791	0.004
Negative affect	1585.000	1323.044	0.165
Personality	317.000	317.000	
Perspective-taking	2219.000	1833.065	0.174
Psychoticism	1585.000	1201.652	0.242
Spiritual well-being	317.000	317.000	

PRACTICE in CLINICAL PSYCHOLOGY

thy, spiritual well-being, cognitive empathy, and psychology (Hamidia et al., 2020). Empathy is related to mental well-being and facilitates teamwork and care for patients provided by healthcare professionals (Cañero Pérez et al., 2019). Cognitive empathy as a variable that is directly involved in nurses' altruism, (Perez-Fuentes et al., 2019) plays an important role in reducing fatigue and improving the well-being of healthcare professionals (Tirado et al., 2019). Spirituality and religiosity were also important and significant predictors of empathy in medical students, which can lead to different results on students' views on clinical empathy and psychosocial or spiritual well-being (Hamidia et al., 2020).

Considering the backgrounds and findings of this study, strengthening spiritual well-being increases em-

Table 4. Path coefficients

Hypotheses	β	P	t	Confirmation or Rejection of Hypotheses
Empathy -> moral reasoning	0.117	0.032	2.144	Confirmed
Personality -> empathy	0.081	0.136	1.491	Rejected
Personality -> moral reasoning	-0.055	0.309	1.018	Rejected
Spiritual well-being -> empathy	0.236	0.000	4.342	Confirmed
Spiritual well-being -> moral reasoning	0.045	0.294	1.050	Rejected

PRACTICE in CLINICAL PSYCHOLOGY

Table 5. R squared

Variables	R^2	Adjusted R^2
Empathic concern	0.253	0.251
Personal distress	0.314	0.312
Antagonism	0.074	0.071
Communication with God	0.623	0.622
Communication with nature	0.044	0.041
Communication with others	0.176	0.173
Communication with self	0.582	0.580
Detachment	0.427	0.426
Disinhibition	0.462	0.460
Empathy	0.067	0.061
Fantasy	0.313	0.311
Moral reasoning	0.019	0.010
Negative affect	0.237	0.234
Perspective-taking	0.286	0.283
Psychoticism	0.363	0.361

PRACTICE in CLINICAL PSYCHOLOGY

pathy and morality and improves moral reasoning and appropriate decision-making in moral problems. Another finding of this study showed that personality had no significant effect on moral reasoning. This result is inconsistent with the findings of Kuilman et al. (2019) and Athota et al. (2009). Personality traits of stability directly and personality traits of flexibility indirectly affect moral reasoning through moral indifference. Highly stable people have high self-control. They are more disciplined, more responsible in interpersonal issues, and less prone to moral indifference (Kuilman et al., 2019). Also, the study of Otto et al. shows that among personality traits, agreeing is the strongest predictor of moral reasoning. However, because of the high correlation between the big five personality traits, this finding can show different results in different populations. Also, the study by Otto et al. was not consistent with another part of the present study, that is, personality can not predict empathy. They showed that people with higher levels of satisfaction experience more empathy and anxiety (Athota et al., 2009). In another study, there was a relationship between agreement, openness to experience, and empathy (Matthews et al., 2003).

The Findings also showed a significant relationship between personality traits, moral principles, and psychological well-being. This significant relationship leads to better job performance, resilience, and spiritual well-being in individuals (Athota et al., 2020). Personality plays an important role in improving people's well-being. Therefore, extroverts show more positive emotions (Goldberg et al., 2006) which leads to differences in the levels of moral reasoning (Athota et al., 2020). According to the background, personality factors predict at least a part of the relationship between primary emotions, empathy (Hiebler-Ragger et al., 2018), and moral reasoning (Kuilman et al., 2019).

Finally, the moral reasoning in the present model was predicted with predictive variables by a value of 0.019. These findings show a significant relationship between empathy and moral principles, spiritual, and psychological well-being. Healthy behaviors (physical activity, worship, seeking social support, restful sleep, etc.) lead to mental health and help to interact with others. Similarly, spiritual well-being is an important aspect that affects the empathy of medical staff with patients (Damiano et al., 2017) and great empathy and compassion in healthcare

by nurses and physicians can fundamentally change the ethical orientations and decisions of the profession (Kerasidou, 2019). Ethical principles of nursing care are important principles for every patient (Barlow et al., 2018). Therefore, nurses need training on skills to establish and maintain professional relationships to solve ethical problems and to participate in micro and macro political and organizational decisions (Barlow et al., 2018).

5. Conclusion

This study showed that spiritual well-being can predict empathy. In addition, empathy can predict ethical reasoning in physicians and nurses. The character could not foresee moral empathy and reasoning. On the other hand, spiritual well-being cannot predict moral reasoning. Since professional and ethical decisions are part of the clinical activities of medical staff, the quality of professional responsibility of medical staff, empathy, and helping others can be strengthened by planning and creating a suitable environment for training. Continuing research in this field can have a significant impact on promoting the growth of professional ethics along with treatment.

Study Limitations

Although the results of this study are new and help in understanding the impact of personality structures and spiritual well-being as well as empathy at the level of principled moral reasoning, one of its limitations was that the sample was from a group of physicians and nurses working in the COVID-19 ward of Shahid Beheshti University of Medical Science hospitals. Considering the difficult situation of doctors and nurses in COVID-19 wards, cooperation was low. The findings of this study should be generalized to other regions or cultures with caution. Given the limitations, training and growth of moral reasoning levels are essential components for physicians' and nurses' jobs.

Ethical Considerations

Compliance with ethical guidelines

The current research was confirmed in the Committee of Research of Shahid Beheshti University of Medical Sciences (Code: IR.SBMU.RETECH.REC.1399.1131).

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Authors' contributions

Conceptualization: Fateme Chitgari, Maryam Bakhtiari;Methodology: Amir Sam Kianimoghadam; Investigation: Fateme Chitgari staff, Amir Sam Kianimoghadam staff, Farnaz Doostdari; Writing: Amir Sam Kianimoghadam, Farnaz Doostdari, Zahra Tavalaee Nezhad; Supervision: Maryam Bakhtiari.

Conflict of interest

The authors declare no conflict of interest.

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