BMC Psychology

RESEARCH   **Open Access**

The relationship between moral, cultural, and spiritual competences with aggression of psychiatric nurses: a descriptive correlational study

Amir Mohamad Nazari[1] and Seyedeh Narjes Mousavizadeh[2*]

Abstract

Background The stressful work conditions that psychiatric nurses face on a daily basis can lead to constant exposure to a wide range of negative emotions and stressors, such as aggression, which can have serious negative consequences for their mental health and well-being. It seems that moral, cultural, and spiritual competencies are the crucial personality traits that contribute significantly to both individual mental well-being and the ability to effectively manage aggression. This study aimed to examine the correlation between the moral, cultural, and spiritual competencies of psychiatric nurses with the levels of aggression experienced by them.

Methods A cross-sectional study was conducted from January to December 2024 on 200 nurses working in the psychiatric department of four teaching hospitals (Iran, Razi, Rouzbeh, and Taleghani), Tehran, Iran. Stratified random sampling was used to select the participants. The participants completed self-administered questionnaires, including the Medical Science Graduates' Cultural Competency Questionnaire, the Spiritual Care Competence Scale (SCCS), the Nurses' Professional Values Scale-Revised (NPVS-R), and the Buss-Perry Aggression Questionnaire (BPAQ) were used to collect data. Data were analyzed using the Pearson correlation test and linear regression analysis.

Results The mean age of the participants was 35.13 ± 8.01 years. The mean scores of moral competence were 104.88 ± 19.34; cultural competence 200.02 ± 29.92, spiritual competence 102.06 ± 18.91, and aggression 59.69 ± 22.41. Findings showed that aggression had a statistically significant negative correlation with moral competence ($r=-0.341$, $p < 0.001$), cultural competence ($r=-0.422$, $p < 0.001$), and spiritual competence ($r=-0.404$, $p < 0.001$). The dimensions of spiritual competence ($\beta=-1.189$, $P = 0.003$), activism ($\beta=-3.426$, $P < 0.001$), justice ($\beta = 4.948$, $P < 0.001$), and professionalization and improvement of the quality of spiritual care ($\beta = 2.091$, $P = 0.024$) have the greatest effect on the psychiatric nurses' aggression, respectively (Table 4).

Conclusion This study concluded that nurses' aggression may be reduced by strengthening their moral, cultural, and spiritual competencies. Clinical managers and health policymakers are encouraged to provide psychiatric nurses with education to improve their moral, cultural, and spiritual competency, which may lead to reduced anger.

---

*Correspondence:
Seyedeh Narjes Mousavizadeh
n.mousavi@sbmu.ac.ir
Full list of author information is available at the end of the article

Background

The experience of aggression, a fundamental and multi-faceted emotion within the human condition, is often a reaction to external stimuli, and research consistently indicates its profound effects on a person's physical and mental health [1, 2]. The frequency of aggressive encounters for nurses is heightened by the nature of their work, which necessitates considerable communication with patients and their families; additionally, various factors—including the cumulative effect of negative emotions over time, personal characteristics (age, marital status), years of professional experience, quality of interpersonal relationships, extended work hours exceeding 40 per week, exposure to hazardous conditions, and patient-specific factors—contribute to diverse levels of experienced aggression [2–4]. Working in emergency and psychiatric wards, therefore, can create a work environment with high levels of job stress, potentially leading nurses to exhibit aggressive behaviors [5–7]. The occurrence of workplace violence in healthcare settings can lead to significant disruptions in nurse-patient communication, thereby endangering patient safety and negatively affecting the psychological well-being of the nursing staff, ultimately impacting the quality of care provided [8–10]. Numerous factors, such as environmental influences (e.g., work approach, perceived support from the organization, job demands, client expectations, and colleague interactions) and individual characteristics (e.g., educational background, professional experience, and coping mechanisms) are linked to the experiences and expressions of aggression among psychiatric nurses [11]. Moreover, research has indicated that competencies, especially in emotional regulation, effective communication, and ethical decision-making, can greatly affect how psychiatric nurses experience and express aggression. Stronger competencies can lead to better management of challenging patient interactions, reducing the likelihood of aggression being triggered or expressed negatively [12, 13].

Cultural competence is defined as the ongoing process of developing the skills necessary to deliver high-quality, safe, and effective care that takes into account the diverse cultural backgrounds of patients [14]. Providing culturally competent care requires healthcare professionals to understand and respect cultural differences [15]. The importance of cultural competence in reducing inequalities within healthcare and improving patient experiences, such as satisfaction levels, has been demonstrated by the literature [16]. Providing culturally competent care requires the integration and meaningful application of culturally relevant health knowledge to effectively address the diverse needs of individuals and groups, ultimately helping them attain optimal health and well-being or manage illness, disorders, and mortality [17]. Furthermore, a knowledge of Islamic cultural and spiritual values, which can be acquired by examining religious implications, perspectives on family, health, illness, diet, the influence of traditional medicine, and concerns related to privacy, is indicated by the evidence to be able to facilitate the provision of appropriate and culturally and spiritually sensitive health care by healthcare professionals [18]. Numerous studies demonstrate a positive correlation between culturally competent nursing care and improved patient health outcomes, including increased patient satisfaction, reduced healthcare disparities, and better adherence to treatment plans, particularly among patients with diverse cultural backgrounds [16, 17, 19]. Having high levels of cultural competence allows nurses to develop more effective communication with their patients, which in turn leads to more appropriate treatments [20].

Moral competence encompasses several key components, including the ability to recognize and define moral dilemmas, a comprehensive understanding of the ethical and moral principles underlying caregiving, the capacity for critical self-reflection on one's own actions and knowledge base, and ultimately, the skill to make sound judgments and navigate ethically complex professional scenarios effectively [21]. In other words, Moral competence is crucial for upholding patient rights and delivering high-quality care, encompassing not just knowledge of ethical and moral principles in healthcare but also the ability to think and make decisions ethically, thereby potentially preventing or mitigating moral distress experienced by healthcare professionals [22–24].

The spiritual competence of nurses involves their capacity to evaluate the spiritual needs of patients and then provide appropriate interventions in collaboration with the wider healthcare team [25]. Studies have shown that the understanding and application of spirituality and spiritual care within healthcare settings continue to present significant challenges due to their subjective, ambiguous, and multifaceted nature [26]. Furthermore, the existing literature reveals a significant deficiency in the spiritual care training received by many nurses, leading them to perceive their capabilities in providing such care as inadequate [27]. A study revealed a deficiency in the professional qualifications of nurses to deliver adequate spiritual care services, coupled with an insufficient role modeling presence from experienced professionals at the

bedside to properly guide and provide this type of care [28, 29]. Although existing evidence reveals that various studies have independently analyzed cultural competence, ethical competence, and spiritual competence among nurses, a comprehensive study simultaneously investigating the interplay between these three competencies, and more importantly, their correlation with nurses' levels of anger, remains absent from the existing body of research. Considering the critical role of anger management for all nurses, particularly in high-pressure psychiatric settings where emotional regulation and effective communication are paramount, and given the limited research exploring the factors influencing this, a study investigating these factors is deemed necessary. Therefore, the present study aimed to examine the correlation between the moral, cultural, and spiritual competencies of psychiatric nurses with the levels of aggression experienced by them.

Methods

Study design and settings
This cross-sectional study was conducted at four teaching hospitals of Iran, Razi, Rouzbeh, and Taleghani in Tehran, the capital of Iran, from January to December 2024.

Participants and sampling
A random stratified sampling technique was employed to recruit the psychiatric nurses. The minimum sample size calculation was performed using G*power software, employing alpha = 0.05, power = 0.80, and an effect size of 0.20 ($n = 193$). A drop-out rate of 10% was considered. The sample size for each hospital was determined by a calculation based on the number of psychiatric nurses employed during the data collection period. The inclusion criteria for the participants were: (1) having at least a bachelor's degree, (2) having full-time clinical employment in a psychiatric ward, (3) having at least 1 year of work experience in a psychiatric ward, and (4) Willingness to participate in the study. We excluded participants who had been involved in similar research projects concurrently with this study and those who failed to complete all the questionnaires. In this study, a total of 200 psychiatric nurses participated; the sample was composed of nurses from Shahid Beheshti (26.4%), Tehran (25.7%), Iran (24.3%), and Social Welfare and Rehabilitation Sciences (23.6%) universities.

Measurements
Five questionnaires were used to collect data, including a questionnaire on demographic and professional characteristics, the Medical Science Graduates' Cultural Competency Questionnaire [30], the Nurses Professional Values Scale-Revised (NPVS-R) [31], the Spiritual Care Competence Scale (SCCS) [32], and the Buss and Perry Aggression Questionnaire (AGQ) [33].

Demographic characteristics questionnaire
The questionnaire included information on participant demographics (age, gender, marital status, education level) and professional details (work experience, number of monthly work shifts), along with an assessment of the presence of underlying health conditions.

The medical science graduates' cultural competency questionnaire
This questionnaire was developed in Iran by Naghizadeh et al. This questionnaire consists of fifty items assessing eight dimensions of contingent behavior (7 items), behavioral and speech habits (4 items), understanding of cultural perceptions of space, time, and touch (7 items), knowledge of health behaviors, beliefs, and physiological differences (6 items), awareness of cultural diversity (5 items), self-awareness (5 items), cultural orientation (7 items), and cultural attitude (9 items). For the questionnaire, respondents will use a 5-point Likert scale to provide their answers, with the scale ranging from completely agreeing with a score of 5 to completely disagreeing with a score of 1. The questionnaire's total score ranges from 50 to 250 points, with scores from 50 to 116 signifying a low level of cultural competence, scores from 117 to 183 indicating a medium level, and scores from 184 to 250 representing a high level of cultural competence. The psychometric evaluation of the questionnaire was also conducted in Naghizadeh et al.'s study to ensure the questionnaire's validity and reliability. A thorough process of testing and validation was undertaken, encompassing the establishment of face validity and content validity, as well as the application of both exploratory and confirmatory factor analyses. The questionnaire's reliability was determined using Cronbach's alpha coefficient, yielding an overall score of 0.96 and demonstrating strong internal consistency across its eight domains, each of which exhibited scores ranging from 0.88 to 0.89 [34]. Cronbach's alpha was utilized in the present study to assess the reliability of the questionnaire, yielding a coefficient of 97.6, indicating a very high level of internal consistency.

The spiritual care competence scale (SCCS)
In 2009, the Spiritual Care Competence Scale (SCCS) was developed as a 27-item instrument, encompassing six dimensions, to thoroughly evaluate the competence of nurses in the delivery of spiritual care. The nurses' activities for ensuring the quality of care and the development of spiritual care policies were examined in the dimensions of "assessment and implementation of spiritual care" (items 1–6) and "professionalization and improvement

of the quality of spiritual care" (items 7–12). Also, cooperation with other healthcare providers was explored in the dimensions of "personal support and patient counseling" (items 13–18) and "referral to professionals" (items 19–21), which mainly focus on religious counseling with a religious counselor. Furthermore, the classification of personal factors related to spiritual care provision and nurse-patient communication was assessed in the dimensions of "attitude toward the patient's spirituality" (items 22–25) and "communication" (items 26–27). The questionnaire uses a five-point Likert scale to measure responses, with scores ranging from 1 (completely disagree) to 5 (fully agree), encompassing the intermediate points of disagree [2], neither agree nor disagree [3], and agree [4]. The total score of the questionnaire ranged from 27 to 135, with higher scores reflecting a greater level of competence in delivering spiritual care within the nursing profession [32]. In Iran, the tool's reliability was assessed using Cronbach's alpha, resulting in a coefficient of 0.77; additionally, exploratory factor analysis was conducted using varimax rotation, indicating eigenvalues of more than 1 for six factors, which explained 63.18% of the variance. The subscales demonstrated satisfactory internal consistency, exhibiting average inter-item correlations exceeding 0.35, and also displayed strong test-retest reliability, indicating stability of measurement over time. A good fit was exhibited by the six-factor model's confirmatory factor analysis (CFA), which was derived from the exploratory factor analysis (EFA) [35]. This study assessed the internal consistency reliability of the questionnaire by employing Cronbach's alpha coefficient, resulting in a coefficient of 0.973, indicating a high level of internal consistency.

Nurses' professional values Scale-Revised

The Nurses' Professional Values Scale-Revised (NPVS-R) is a 26-item instrument assessing five key dimensions of nursing professionalism: justice, encompassing three items [3, 12, 13]; professionalism, with four items [5–8]; trust, measured by five items [1, 2, 9, 14, 15]; activism, consisting of five items [4, 10, 11, 19, 26]; and finally, caring, which includes nine items [16–18, 20–25]. The scoring system utilizes a 5-point Likert scale, assigning 1 point to "not important," 2 points to "slightly important," 3 points to "fairly important," 4 points to "important," and a maximum of 5 points to responses indicating that the item is "very important." A scoring system of this scale ranges from 26 to 130, with higher scores representing a stronger understanding of the professional values held by nurses; scores below 43 indicate low importance, scores between 43 and 86 show medium importance, and scores above 86 signify high importance. The scale, designed and standardized by Weis and Schank for measuring nurses' perceptions of professional values, shows

sufficient reliability and validity, according to their research [31, 36]. Parvan et al. (2012), in their psychometric examination of the Persian version of the scale, ensured translation accuracy through verification by several university board members and professional translators and assessed the scale's face and content validity using expert opinions from a panel of experts, composed of master's degree nurses and Ph.D. nursing professors. The scale's reliability was confirmed to be high, as evidenced by a Cronbach's alpha coefficient of 0.91 [37]. In the present study, a reliability coefficient of 97.5 was calculated for the questionnaire.

The bussperry aggression questionnaire

To assess the characteristics of aggression, researchers employed the Buss-Perry Aggression Questionnaire (BPAQ), a self-report instrument designed to measure various aspects of aggressive behavior. The instrument is a four-factor structure scale that measures hostility (questions 22–29), aggression (questions 15–21), verbal aggression (questions 10–14), and physical aggression (questions 1–9). A 5-point Likert scale is used to score each item, with 1 representing "extremely untypical of me" and 5 representing "extremely typical of me". The total score on the scale ranged from 29 to 145, with higher scores indicating more aggressive behavior; scores from 29 to 58 were categorized as nonaggressive, 59–87 as mild aggression, 88–116 as moderate aggression, and 117–145 as severe aggression. The face and content validity of this questionnaire was confirmed by Buss and Perry. Also, the reliability of this questionnaire was calculated using Cronbach's alpha coefficient for the subscales of physical aggression (0.85), verbal aggression (0.72), anger (0.83), and hostility (0.77), and the whole questionnaire (0.89) [33]. In Iran, Afshari et al. in their study conducted the psychometric evaluation of this questionnaire by using confirmatory factor analysis (CFA) and bivariate correlations. The results of their study showed that the Persian version of the BPAQ yielded scores with robust reliability (internal consistency ranging from 0.82 to 0.93, and the Intraclass correlation coefficients (ICC) varied from 0.65 to 0.93 with moderate, good, and excellent results) and adequate convergent validity (correlations with BPAQ and the Novaco Anger Scale (NAS) ranging from 0.57 to 0.78) which indicated that BPAQ is a valid and reliable measure of aggression among juvenile delinquents in Iran [38]. In this study, to ensure the questionnaire's reliability, the researchers employed the alpha Cronbach's method, which resulted in a coefficient of 96.3, indicating a high level of reliability.

Data collection

Data collection for this study was conducted from July to September 2024. Following the acquisition of the

necessary approvals from the ethics committee and the relevant officials within the Faculty of Nursing and Midwifery at Shahid Beheshti University of Medical Sciences, including obtaining all the required permits, the researcher formally introduced himself to the administrative directors of the selected hospitals. Before completing the questionnaires, all participants received a face-to-face briefing on the study's objectives, and after signing informed written consent forms, they completed the paper-based self-administered questionnaires. Researchers collected the questionnaires once they had been completely filled out by the participants. All five questionnaires were equally divided and given to nurses working the three shifts—morning, evening, and night. A total of 210 questionnaires were distributed for this survey, and we received 200 completed questionnaires back, resulting in a response rate of 95%.

Statistical analysis

Data analysis was performed using IBM SPSS Statistics for Windows, version 20.0 (IBM Corp.). The collected data underwent analysis employing descriptive and inferential statistical methods; normality of the data was assessed using the Kolmogorov-Smirnov test; and the descriptive statistics comprised the computation of means, standard deviations, percentages, and frequencies. The study used Pearson's correlation coefficient to examine how the moral, cultural, and spiritual competencies among psychiatric nurses correlated with their reported levels of exposure to aggression in their professional roles. Moreover, a stepwise multiple linear regression analysis was implemented to comprehensively analyze the predictive factors associated with the aggression displayed by psychiatric nurses. P-values less than 0.05 were considered statistically significant.

Ethical considerations

This study has been performed in accordance with the Declaration of Helsinki and approved by the Ethics Committee of Shahid Beheshti University of Medical Sciences, Tehran, Iran (Ethics No. IR.SBMU.PHARMACY. REC.1402.269). Prior to the beginning of the study, the study's objectives, the participants' anonymity, and the optionality of participating in the study were explained to the participants. In addition, written informed consent was obtained from each participant in the study.

Results

This study involved 200 nurses, of whom more than half were female ($n = 104$, 52%). The participants were 35.13 (8.01) years old on average, and more than half had a bachelor's degree ($n = 105$, 52.5%), and were without underlying illness ($n = 168$, 84%). In Table 1, participants' demographic characteristics are summarized.

The results revealed that the mean and standard deviation of the moral competence was 104.88 ± 19.34, cultural competence was 200.02 ± 29.92, and spiritual competence was 102.06 ± 18.91, indicating a high level among psychiatric nurses. Also, the mean and standard deviation of the psychiatric nurses' aggression was 59.69 ± 22.41, indicating a moderate level among psychiatric nurses (Table 2).

The Pearson correlation analysis revealed a negative link between nurses' spiritual competence and aggression ($r = -0.404$, $P < 0.001$), moral competence and aggression ($r = -0.341$, $P < 0.001$), and cultural competence and aggression ($r = -0.422$, $P < 0.001$) (Table 3).

According to linear regression analysis, the factors of justice, professionalization, and improvement of the quality of spiritual care, attitude toward the patient's spirituality, communication, knowledge of the concepts of different cultures (space, time, touch), behavioral and speech habits, and gender (male) were positively associated with aggression. In addition, the factors of spiritual competence, activism, cultural orientation, knowledge

Table 1 Demographic characteristics of the participants ($n = 200$)

Variable	Categories	Mean ± SD
Age (year)		35.13 ± 8.01
Work experience (year)		10.31 ± 6.71
Number of work shifts per month		20.19 ± 5.92
Variable	Categories	Percentage
Gender	Male	48
	Female	52
Marital status	Single	47.5
	Married	52.5
Educational level	Bachelor's degree	75.5
	Master's degree	21.5
	Doctorate	3
Presence of underlying disease.	Yes	16
	No	84

Table 2 The mean score of moral, cultural, and spiritual competencies and aggression of the participants

Variables	Mean	Std. Deviation	Min	Max
Cultural Competence	**200.02**	**29.92**	55	246
Cultural Attitude	36.75	5.49	9	45
Cultural Orientation	27.51	4.81	7	35
Self-Awareness	20.77	3.10	5	25
Awareness of Cultural Diversity	19.67	3.30	5	25
Knowledge of Health Behaviors, Beliefs, and Physiological Differences	23.95	3.97	6	30
Knowledge of the Concepts of Different Cultures (Space, Time, Touch)	27.54	4.46	7	35
Behavioral and Speech Habits	17.07	2.50	4	20
Contingent Behavior	26.75	5.30	7	35
Moral Competence	**104.88**	**19.34**	32	129
Caring	36.41	7.32	10	45
Activism	20.58	4.06	6	25
Trust	19.88	3.68	7	25
Professionalism	16.20	3.05	5	20
Justice	11.80	2.30	4	15
Spiritual Competence	**102.06**	**18.91**	37	135
Assessment and implementation of spiritual care	22.66	4.35	6	30
Professionalization and improvement of the quality of spiritual care	26.43	5.08	9	35
Personal support and patient counseling	22.42	4.97	7	30
Referral to professionals	11.26	2.50	5	15
Attitude toward the patient's spirituality	15.62	3.04	8	20
Communication	7.53	1.82	2	10
Aggression	**59.69**	**22.41**	33	145
Physical aggression	19.48	8.00	9	45
Verbal aggression	10.49	4.36	5	25
Aggression	13.45	5.94	7	35
Hostility	16.26	5.63	8	40

of health behaviors, beliefs, and physiological differences, and marital status (single) were negatively related to aggression. These factors explained 0.393 of the total changes in the aggression.

Discussion

This research study examined the correlations that exist between the levels of moral, cultural, and spiritual competence and the level of aggression experienced by psychiatric nurses. The results of this study demonstrated that psychiatric nurses, on average, exhibited a high level of cultural competence, as indicated by their mean scores on the assessment instrument. A study conducted by Osmancevic et al. [39] revealed that nurses working in acute care settings demonstrated a moderate to high level of cultural competence, as indicated by their study's results. Furthermore, the research conducted by Cicolini et al. revealed a moderate level of cultural competence among Italian nurses, a finding documented in their publication [40]. The discrepancy found in the results concerning cultural competence levels can be attributed to societal differences and variations among the study participants.

The current study's findings indicated a high mean score for moral competence among the psychiatric nurses who participated in the present study. In their study, Nazari et al. [41] determined that the moral competence levels among the clinical nurses they surveyed were moderate to high. In addition to previous findings, the research carried out by Maluwa et al. [42] demonstrated that a significantly large proportion of the nurses participating in the study displayed a low level of moral competence. Several factors may account for the disparity in these findings, including the subjects' diverse working environments, varying organizational and social cultures, differing geographical locations of residence, and unique individual characteristics.

Given the findings from our recent study, the average spiritual competence score obtained from psychiatric nurses was remarkably high. The findings of Heidari et al.'s research indicated that Iranian nurses demonstrated a spiritual competence level that was classified as moderate to high [43]. Furthermore, the research findings presented by Wang and colleagues indicated a moderate level of spiritual competence amongst the participating Chinese nurses in their study [44]. It seems that the most significant reason for the differences found between these studies is the differing nature of the work environments in which the studies were conducted.

Table 3 Pearson's correlation coefficient between moral, cultural, and spiritual competence and aggression of the participants

Variables	Aggression				
	Physical Aggression	Verbal Aggression	Anger	Hostility	Total
Cultural Competence	**-0.413**[**]	**-0.379**[**]	**-0.396**[**]	**-0.381**	**-0.422**[**]
Cultural Attitude	-0.375[**]	-0.317[**]	-0.371[**]	-0.348[**]	-0.382[**]
Cultural Orientation	-0.422[**]	-0.393[**]	-0.381[**]	-0.407[**]	-0.431[**]
Self-Awareness	-0.286[**]	-0.307[**]	-0.330[**]	-0.334[**]	-0.333[**]
Awareness of Cultural Diversity	-0.409[**]	-0.344[**]	-0.363[**]	-0.361[**]	-0.400[**]
Knowledge of Health Behaviors, Beliefs, and Physiological Differences	-0.421[**]	-0.422[**]	-0.426[**]	-0.341[**]	-0.431[**]
Knowledge of the Concepts of Different Cultures (Space, Time, Touch)	-0.391[**]	-0.355[**]	-0.336[**]	-0.353[**]	-0.387[**]
Behavioral and Speech Habits	-0.243[**]	-0.279[**]	-0.312[**]	-0.230[**]	-0.282[**]
Contingent Behavior	-0.378[**]	-0.314[**]	-0.333[**]	-0.336[**]	-0.369[**]
Moral Competence	**-0.293**[**]	**-0.324**[**]	**-0.337**[**]	**-0.334**	**-0.341**[**]
Caring	-0.263[**]	-0.299[**]	-0.300[**]	-0.335[**]	-0.316[**]
Activism	-0.361[**]	-0.369[**]	-0.413[**]	-0.385[**]	-0.407[**]
Trust	-0.251[**]	-0.314[**]	-0.290[**]	-0.268[**]	-0.295[**]
Professionalism	-0.257[**]	-0.263[**]	-0.298[**]	-0.257[**]	-0.287[**]
Justice	-0.244[**]	-0.270[**]	-0.292[**]	-0.287[**]	-0.289[**]
Spiritual Competence	**-0.370**[**]	**-0.425**[**]	**-0.365**[**]	**-0.366**[**]	**-0.404**[**]
Assessment and implementation of spiritual care	-0.274[**]	-0.289[**]	-0.279[**]	-0.327[**]	-0.311[**]
Professionalization and improvement of the quality of spiritual care	-0.325[**]	-0.359[**]	-0.322[**]	-0.337[**]	-0.356[**]
Personal support and patient counseling	-0.384[**]	-0.443[**]	-0.384[**]	-0.371[**]	-0.418[**]
Referral to professionals	-0.422[**]	-0.478[**]	-0.398[**]	-0.368[**]	-0.442[**]
Attitude toward the patient's spirituality	-0.246[**]	-0.317[**]	-0.229[**]	-0.248[**]	-0.273[**]
Communication	-0.316[**]	-0.422[**]	-0.352[**]	-0.284[**]	-0.359[**]

** Correlation is significant at the 0.01 level (2-tailed)

Table 4 Linear regression analysis coefficients to examine predictors of aggression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Model Summary
	B	Std. Error	Beta			Lower Bound	Upper Bound	Adjusted R Square
Constant	116.040	9.657		12.016	<0.001	96.990	135.091	0.393
Spiritual competence	-1.189	0.390	-1.003	-3.049	0.003	-1.958	-0.420	
Activism	-3.426	0.676	-0.622	-5.067	<0.001	-4.760	-2.092	
Justic	4.948	1.212	0.510	4.083	<0.001	2.557	7.338	
Professionalization and improvement of the quality of spiritual care	2.091	0.922	0.475	2.268	0.024	0.273	3.909	
Attitude toward the patient's spirituality	1.781	0.980	0.242	1.817	0.071	-0.153	3.715	
Communication	2.431	1.288	0.198	1.888	0.061	-0.109	4.972	
Cultural Orientation	-2.384	0.798	-0.512	-2.987	0.003	-3.958	-0.809	
Knowledge of Health Behaviors, Beliefs, and Physiological Differences	-2.569	0.603	-0.455	-4.263	<0.001	-3.758	-1.380	
Knowledge of the Concepts of Different Cultures (Space, Time, Touch)	2.211	0.853	0.440	2.593	0.010	0.529	3.893	
Behavioral and Speech Habits	2.403	0.790	0.269	3.044	0.003	0.846	3.961	
Gender (male)	7.538	2.789	0.168	2.703	0.008	2.036	13.041	
Marital status (single)	-5.641	2.877	-0.126	-1.961	0.051	-11.317	0.034	

Dependent variable: Aggression

According to the results obtained from this study, the level of aggression among psychiatric nurses was found to be at the moderate level, while Tarazoj et al.'s study indicated that the average anger score for nurses working in the emergency department was less than average level [45]. Furthermore, a study conducted by Greenglass et al. in Canada revealed that nurses working in cardiorespiratory intensive care units, as well as internal medicine and surgical units, experienced high levels of aggression [46]. The discrepancy between the findings may be attributed to the different cultures, atmosphere prevailing in different units of hospital, definition of anger used in the

studies, and the different standards and policies in different countries.

The current research demonstrated a significant negative correlation, showing that as cultural competence increased among the psychiatric nurses studied, their reported levels of aggression decreased. A review of existing literature supports the hypothesis by demonstrating a connection between cultural competence and aggression, implying that cultural competence plays a crucial role in the success of aggression prevention interventions [47, 48]. These earlier studies yielded results that aligned perfectly with those discovered in this current investigation.

The results of this study revealed a statistically significant negative correlation between moral competence levels and the aggression experienced by psychiatric nurses. According to the findings of a study conducted by Faisal et al. [49], there was no significant relationship observed between the levels of moral competence and the prevalence of aggression within the sample group of university students investigated. In contrast, a separate study reported a statistically significant positive correlation between acts of immorality and the experience of aggression [50]. The distinct findings yielded by these surveys may be explained by considering the unique individual characteristics that distinguish the subjects of each survey.

The findings of our study investigated the relationship between spiritual competence and aggression among psychiatric nurses, finding a significant negative correlation between moral competence and the experience of aggression. A review of existing literature [51, 52] exploring the relationship between these variables provided the foundation for the hypothesis presented in this work. According to a study by Alorani et al. [53], there's evidence suggesting that spiritual well-being and aggression are negatively correlated amongst university students, meaning that as one increases, the other tends to decrease.

Linear regression analysis revealed a positive association between aggression and several factors, including justice, professionalization, and improvement of the quality of spiritual care, attitude toward the patient's spirituality, communication, knowledge of the concepts of different cultures (space, time, touch), behavioral and speech habits, and gender (male). Moreover, a negative relationship was observed between aggression and several other factors such as spiritual competence, activism, cultural orientation, knowledge of health behaviors, beliefs, and physiological differences, and marital status (single). The results of the study by Jalil et al. [54]. revealed that exposure to personally valent aggressive behavior by the patient predicted nursing staff anger provocation. Also, Abou Zeid et al. [55]. in their study examined the predicting factors of management of aggression and violence attitude in patients and psychiatric nurses and found that among the patients' group, a university education level and higher Buss-Perry Aggression scale were significantly associated with a lower Management of Aggression and Violence Attitude Scale (MAVAS) total scale and among the staff group, no significant association was found between the variables and the MAVAS total scale. The difference in the findings of the theses study can be associated with the different societies as well as the study subjects.

In general, the findings of the current investigation suggested that moral, cultural, and spiritual competence contribute to anger regulation by enhancing self-awareness, self-discipline, moral reasoning, and meaningful interpretation of life events. Theories such as emotional intelligence, moral development, and self-regulation offer strong explanations for this connection. According to the emotional intelligence theory, individuals with high emotional intelligence are able to recognize, manage, and respond to their emotions—such as anger—in constructive ways. Based on this theory, moral and spiritual competence often correlates with high emotional intelligence, as these individuals tend to exhibit greater self-awareness and self-control. Also, this theory showed that people with strong cultural competence better understand social contexts and are more likely to avoid inappropriate expressions of anger [56, 57]. Furthermore, according to Kohlberg's moral development theory, individuals at the higher stages of moral reasoning act based on universal ethical principles. This theory highlights that in situations that provoke anger, such individuals regulate their reactions based on values like justice, respect, compassion, and inner discipline [58, 59]. In addition, based on Albert Bandura's social learning theory, people learn how to respond to emotional situations—such as anger—by observing and imitating role models. In this theory, cultural and spiritual competence often stems from environments that promote positive behavioral models, such as calm, forgiving, and reflective reactions. Bandura also emphasizes moral self-efficacy, the individual's ability to act according to moral values even in emotionally charged situations [60, 61]. Moreover, in the positive psychology theory, virtues such as patience, compassion, humility, and spirituality are seen as tools to enhance psychological well-being and regulate anger. Also, this theory suggests that a spiritual outlook on life helps individuals adopt a broader, more balanced perspective, which can reduce impulsive reactions and promote emotional resilience [62, 63]. While this study makes a novel contribution by being the first to examine the correlation between these four constructs, it is important to acknowledge certain limitations inherent in its design and execution. One of the limitations of this study is that, while data was collected from four hospitals, all participating hospitals

were government-run, which limits the generalizability of the findings because no private hospitals or universities were included in the study. The cross-sectional study design limits our capacity to definitively determine causality between moral, cultural, and spiritual competence and aggression among psychiatric nurses; furthermore, inherent limitations of survey research, despite our commitment to confidentiality, raise the possibility of response bias and social desirability bias influencing the results. Additionally, another limitation of this study was the lack of control over confounding variables like workload, organizational culture, or individual coping strategies that could affect the aggression levels of psychiatric nurses.

Conclusion

The study's findings revealed a negative correlation, demonstrating that higher levels of moral, cultural, and spiritual competence among psychiatric nurses were associated with lower levels of experienced aggression. This study suggests a multifaceted approach to anger management among psychiatric nurses, where clinical managers may utilize not only competence-building initiatives, but also organizational support mechanisms and stress management programs in order to address the difficulties of aggression among psychiatric nurses. These strategies may benefit psychiatric nurses to improve their mental well-being, reduce their stress levels, and increase their ability to cope with the difficult demands of their profession.

Abbreviations
SCCS	Spiritual Care Competence Scale
NPVS-R	Nurses' Professional Values Scale-Revised
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
BPAQ	Buss-Perry Aggression Questionnaire
ICC	Intraclass correlation coefficients
NAS	Novaco Anger Scale
MAVAS	Management of Aggression and Violence Attitude Scale

Declarations

Author details
[1] Master's Student in Medical-Surgical Nursing, Student Research Committee, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran
[2] Department of Psychiatric Nursing and Management, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran

References
1. Ahangarzadeh Rezaee S, Izadi A. The effect of anger management training on nursing students' mental health in faculty of nursing and midwifery, URMIA. Urmia-University-of-Medical-Sciences. 2012;10(4):0.
2. Han A, Won J, Kim O, Lee SE. Anger expression types and interpersonal problems in nurses. Asian Nurs Res. 2015;9(2):146–51.
3. Teymourzadeh E, Rashidian A, Arab M, Akbari-Sari A, Hakimzadeh SM. Nurses exposure to workplace violence in a large teaching hospital in Iran. Int J Health Policy Manage. 2014;3(6):301.
4. Tayyar-Irvanlou F, Mousavizadeh SN, Mohtashami J, Nasiri M. The effect of metacognitive therapy on treatment adherence and life expectancy of patients with gastrointestinal cancers. Journal of Kerman University of Medical Sciences. 2022;29(5):477–483.
5. Lantta T, Anttila M, Kontio R, Adams CE, Välimäki M. Violent events, ward climate and ideas for violence prevention among nurses in psychiatric wards: a focus group study. Int J Mental Health Syst. 2016;10:1–10.
6. Pourshaikhian M, Gorji HA, Aryankhesal A, Khorasani-Zavareh D, Barati A. A systematic literature review: workplace violence against emergency medical services personnel. Archives Trauma Res. 2016;5(1).
7. Yada H, Lu X, Omori H, Abe H, Matsuo H, Ishida Y, Katoh T. Exploratory study of factors influencing Job-Related stress in Japanese psychiatric nurses. Nurs Res Pract. 2015;2015(1):805162.
8. Edward KI, Stephenson J, Ousey K, Lui S, Warelow P, Giandinoto JA. A systematic review and meta-analysis of factors that relate to aggression perpetrated against nurses by patients/relatives or staff. J Clin Nurs. 2016;25(3–4):289–99.
9. Hamrin V, Iennaco J, Olsen D. A review of ecological factors affecting inpatient psychiatric unit violence: implications for relational and unit cultural improvements. Issues Ment Health Nurs. 2009;30(4):214–26.
10. Weltens I, Bak M, Verhagen S, Vandenberk E, Domen P, van Amelsvoort T, Drukker M. Aggression on the psychiatric ward: prevalence and risk factors. A systematic review of the literature. PLoS ONE. 2021;16(10):e0258346.
11. Jafar Jalal E, Aziz Mohammadi F, Seyyed Fatemi N, Haghani H. Secondary traumatic stress and resilience of the nurses at the psychiatric centers in Tehran City. Iran IJN. 2019;32(120):36.

12. Jafari Samie M, Farsi Z, Azizi M. Effect of training interaction and anger controlling skill on nurses' exposure to aggressive behaviors in hospitalized patients in psychiatric departments of selected military hospitals. ajaums-mcs. 2019;6(2):93.

13. Song Y-O, Kim H, Nam Y, Choe K, Ha J. Effects of a competency-based education program for inpatient psychiatric nurses: A pre-post intervention study. 정신간호학회지. 2022;31(1):80-7.

14. Sharifi N, Adib-Hajbaghery M, Najafi M. Cultural competence in nursing: A concept analysis. Int J Nurs Stud. 2019;99:103386.

15. Cai D-Y. A concept analysis of cultural competence. Int J Nurs Sci. 2016;3(3):268-73.

16. Kaihlanen A-M, Hietapakka L, Heponiemi T. Increasing cultural awareness: qualitative study of nurses' perceptions about cultural competence training. BMC Nurs. 2019;18:1-9.

17. Antón-Solanas I, Huércanos-Esparza I, Hamam-Alcober N, Vanceulebroeck V, Dehaes S, Kalkan I, et al. Nursing lecturers' perception and experience of teaching cultural competence: A European qualitative study. Int J Environ Res Public Health. 2021;18(3):1357.

18. Ezenkwele UA, Roodsari GS. Cultural competencies in emergency medicine: caring for Muslim-American patients from the middle East. J Emerg Med. 2013;45(2):168-74.

19. Cai D, He W, Klug D. Cultural competence among nurses and its influencing factors: A cross-sectional study. Nurs Health Sci. 2021;23(2):411-8.

20. Ervin NE, Bickes JT, Schim SM. For Preparing a new generation of nurses. J Nurs Educ. 2006;45:2.

21. Lechasseur K, Caux C, Dollé S, Legault A. Ethical competence: an integrative review. Nurs Ethics. 2018;25(6):694-706.

22. Kälvemark Sporrong S, Arnetz B, Hansson MG, Westerholm P, Höglund AT. Developing ethical competence in health care organizations. Nurs Ethics. 2007;14(6):825-37.

23. Poikkeus T, Numminen O, Suhonen R, Leino-Kilpi H. A mixed-method systematic review: support for ethical competence of nurses. J Adv Nurs. 2014;70(2):256-71.

24. Poikkeus T, Suhonen R, Katajisto J, Leino-Kilpi H. Organisational and individual support for nurses' ethical competence: a cross-sectional survey. Nurs Ethics. 2018;25(3):376-92.

25. Chen ML, Chen YH, Lin LC, Chuang LL. Factors influencing the self-perceived competencies in spiritual care of nurses in the long-term care facilities. J Nurs Adm Manag. 2020;28(6):1286-94.

26. Soheili M, Mollai Iveli M. A review of the role of spiritual cares in the nursing profession. J Relig Health. 2019;7(1):75-84.

27. Adib-Hajbaghery M, Zehtabchi S. Assessment of nurses' professional competence in spiritual care in kashan's hospitals in 2014. Avicenna J Nurs Midwifery Care. 2014;22(4):23-32.

28. Adib-Hajbaghery M, Zehtabchi S, Fini IA. Iranian nurses' professional competence in spiritual care in 2014. Nurs Ethics. 2017;24(4):462-73.

29. Giske T, Cone PH. Opening up to learning spiritual care of patients: a grounded theory study of nursing students. J Clin Nurs. 2012;21(13-14):2006-15.

30. Naghizadeh MZ, Abbaspour A, Ghiasi NS, Feiz M, Kuhpayehzadeh J. Psychometric evaluation of the Medical Science Graduates' Cultural Competency Questionnaire. 2020.

31. Weis D, Schank MJ. Development and psychometric evaluation of the Nurses Professional Values Scale–Revised [corrected][published erratum appears in J NURS MEAS. 2010; 18 (1): 70–2]. Journal of nursing measurement. 2009;17(3).

32. Van Leeuwen R, Tiesinga LJ, Middel B, Post D, Jochemsen H. The validity and reliability of an instrument to assess nursing competencies in spiritual care. J Clin Nurs. 2009;18(20):2857-69.

33. Buss AH, Perry M. The aggression questionnaire. J Personal Soc Psychol. 1992;63(3):452.

34. Naghizadeh Moghary Z, Abbas Pour A, Ghiasi Nodooshan S, Feiz M, Kuhpayehzadeh J. Psychometric evaluation of the medical science graduates' cultural competency questionnaire. Payeshj. 2020;19(4):423-33.

35. Khalaj M, Pakpour A, Zeidi IM. Validity and reliability of a Persian version of nursing students' competence scale in spiritual care. J Inflamm Dis. 2013;17(2):63-70.

36. Poorchangizi B, Borhani F, Abbaszadeh A, Mirzaee M, Farokhzadian J. The importance of professional values from nursing students' perspective. BMC Nurs. 2019;18:1-7.

37. Parvan K, Hosseini F, Zamanzadeh V. Professional values from nursing students' perspective in Tabriz university of medical sciences: a pilot study. Iran J Nurs. 2012;25(76):28-41.

38. Afshari M, Hashemi Razini H, yariari F, Khanipour H. Psychometric properties of the Persian version of the Buss-Perry aggression Questionnaire-short form among juvenile delinquents. IJNR. 2025;20(1):80.

39. Osmancevic S, Großschädl F, Lohrmann C. Cultural competence among nursing students and nurses working in acute care settings: a cross-sectional study. BMC Health Serv Res. 2023;23(1):105.

40. Cicolini G, Della Pelle C, Comparcini D, Tomietto M, Cerratti F, Schim SM, et al. Cultural competence among Italian nurses: A multicentric survey. J Nurs Scholarsh. 2015;47(6):536-43.

41. Nazari AM, Borhani F, Zare-Kaseb A, Zafarnia N. The relationship between nurses' moral competency and missed nursing care: a descriptive-correlational study. BMC Nurs. 2024;23(1):388.

42. Maluwa VM, Maluwa AO, Mwalabu G, Msiska G. Assessment of ethical competence among clinical nurses in health facilities. Nurs Ethics. 2022;29(1):181-93.

43. Heidari A, Afzoon Z, Heidari M. The correlation between spiritual care competence and spiritual health among Iranian nurses. BMC Nurs. 2022;21(1):277.

44. Wang Z, Zhao H, Zhang S, Wang Y, Zhang Y, Wang Z, et al. Correlations among spiritual care competence, spiritual care perceptions and spiritual health of Chinese nurses: A cross-sectional correlational study. Palliat Supportive Care. 2022;20(2):243-54.

45. Asgari Tarazoj A, Ali Mohammadzadeh K, Hejazi S. Relationship between moral intelligence and anger among nurses in emergency units of hospitals affiliated to Kashan university of medical sciences. J Health Care. 2018;19(4):262-71.

46. Greenglass ER, Burke RJ. The relationship between hospital restructuring, anger, hostility and psychosomatics in nurses. J Community Appl Social Psychol. 2000;10(2):155-61.

47. Hudley C. Cultural competence and prevention programming. Youth suicide and bullying: challenges and strategies for prevention and intervention. 2014:104.

48. Hudley C, Taylor A. What is cultural competence and how can it be incorporated into preventive interventions? 2006.

49. Faisal MA, Majeed S. Moral competence, Pro-social behavior and aggression in university students. J Res. 2021;15(1):58-76.

50. Gabbiadini A, Riva P, Andrighetto L, Volpato C, Bushman BJ. Interactive effect of moral disengagement and violent video games on self-control, cheating, and aggression. Social Psychol Personality Sci. 2014;5(4):451-8.

51. Burns JP. The relationship of spirituality to adolescent male anger. and aggression: Northeastern University; 2003.

52. Huber li JT. An investigation of the relations between aggression and spirituality. University of Detroit Mercy; 2012.

53. Alorani OI, Alradaydeh MF. Depression, aggression and spiritual well-being among the university students in Jordan. Eur Sci J. 2017;13(2):269-80.

54. Jalil R, Huber JW, Sixsmith J, Dickens GL. Mental health nurses' emotions, exposure to patient aggression, attitudes to and use of coercive measures: cross sectional questionnaire survey. Int J Nurs Stud. 2017;75:130-8.

55. Zeid LA, Haddad C, Hallit S, Haddad G. Patient and staff perception of aggression and its management in a Lebanese psychiatric hospital: a cross-sectional study. Discover Mental Health. 2025;5(1):46.

56. Cherniss C, Extein M, Goleman D, Weissberg RP. Emotional intelligence: what does the research really indicate? Educational Psychol. 2006;41(4):239-45.

57. Goleman D. Daniel goleman on emotional intelligence. The george luca educational foundation; 2005.

58. Crain WC. Kohlberg's stages of moral development. Theories of development. 1985:118-36.

59. Ísaksson A. Kohlberg's theory of moral development and its relevance to education. Scandinavian J Educational Res. 1979;23(2):47-63.

60. Bandura A, Hall P. Albert bandura and social learning theory. Learn Theor Early Years. 2018;78:35-6.

61. McLeod S. Albert bandura's social learning theory. Simply Psychol Lond. 2011;694:695.

62. Durkin MA. Positive psychology theory and practice. The COMPASS model in criminal and forensic psychology. Emerald Publishing Limited; 2025. pp. 65-82.

63. Hefferon K, Boniwell I. Positive psychology: theory, research and applications. McGraw-Hill Education (UK); 2011.

Publisher's note