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Compassion Competence and Patient Safety Competency in psychiatric nurses

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Abstract

Background Compassion Competence and the ability to strive to understand the suffering of patients in psychiatric ward is essential for nurses to establish effective therapeutic communication in the process of their recovery. Patient Safety Competency is of great importance for nurses to prevent adverse events and minimize errors. This study aimed to investigate the relationship between Compassion Competence and Patient Safety Competency in nurses working in psychiatric wards of Shiraz University of Medical Sciences affiliated hospitals in 2024.

Method This descriptive-analytical study was conducted on 184 nurses working in the psychiatric wards of Shiraz University of Medical Sciences affiliated hospitals from January 2024 to April 2024 as a census. Data were collected using the Compassion Competence, Patient Safety Competency and Demographic Survey questionnaires and were then analyzed using descriptive and analytical statistics. The analyses were performed using SPSS 22 statistical software.

Results The results showed that the compassion competence score of psychiatric nurses was 3.98 ± 0.46, with subscales of sensitivity (4.05 ± 0.56), insight (3.79 ± 0.62), and communication (4.04 ± 0.48). Additionally, the patient safety competency score of psychiatric nurses was 3.56 ± 0.44, with subscales of attitude (3.67 ± 0.34), knowledge (3.06 ± 0.77), and skill (3.63 ± 0.58). A statistically significant correlation was also found between Compassion Competence and Patient Safety Competency ($r = 0.458$, $p < 0.001$). Regression results showed that the sensitivity ($p = 0.012$) and insight ($p = 0.026$) dimensions predict Patient Safety Competency. Among the demographic variables, only the completion of a communication skills course was significantly associated with both Compassion Competence ($p = 0.04$) and Patient Safety Competency ($p = 0.02$).

Conclusion The findings of this study revealed a statistically significant correlation between Compassion Competence and Patient Safety Competency among psychiatric nurses. It is recommended that educational programs be designed to consider these two components and their dimensions to help enhance the competencies of nurses.

Clinical trial number Not applicable.

Keywords Compassion, Competence, Patient safety, Psychiatric nursing

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Background

Nurses working in psychiatric wards are a group of healthcare providers who have the knowledge and skills to provide holistic care to individuals with mental health disorders [1]. These nurses face increasing complexities in their profession today, as it has become an interpersonal process that reflects interaction in communication between individuals. This interaction is a caring, therapeutic and reflective act that can help improve patients' emotional and mental health [2].

Nurses working in psychiatric wards must strive to establish therapeutic communication with patients in order to provide patient-centered and high-quality care, which is crucial for societal progress [3, 4]. One of the essential characteristics for establishing such a relationship is the nurse's possession of Compassion Competence [5]. Compassion Competence is defined as the individual's ability and skill to understand the suffering of others and to work to alleviate it [6]. Compassion Competence, based on a relationship of kindness and appreciation between the nurse and the patient and their families, sufficient attention from the nurse to the patient and sensitivity to their needs, and understanding these needs based on professional knowledge, paves the way for the provision of compassionate care to patients [6–8]. In the absence of compassion in care delivery, patients' well-being decreases and the motivation of the healthcare providers is lost [9]. Lee et al. (2022) in their study stated that the Spirituality and Job satisfaction of nurses working in Hospice Nurses affect Compassion Competence, which improvement can affect the quality of palliative care in the hospice [10].

Patient safety is a fundamental challenge in healthcare delivery, as side effects arising from treatment and care are common [11]. Studies show that while 3 to 17% of hospitalized patients experience harm from unintentional events or medical errors, 30 to 70% of these errors are preventable using standard methods [12]. Patient safety threats in the psychiatric wards, including violence, suicide, self-harm or harm to others, and risks associated with isolation or the use of restraints, can result in short-term or long-term mental, psychological, and physical harm to patients [12, 13]. Enhancing nurses' professional competence, which encompasses Patient Safety competency, is a crucial factor in improving patient safety levels [12]. Understanding patient safety Competency contributes to enhanced safe performance, professional development, and minimizing potential treatment-related risks [14]. Torkaman et al. (2022) stated in their study that psychiatric nurses have low Patient Safety Competency and this predicts the safe care they provide [12]. Liu et al. (2022) stated in their study that mindfulness meditation can improve nurses' Patient Safety Competency and help improve patient safety issues [15].

Studies in compassion competence among healthcare personnel have primarily focused on its relationship with concepts like professional quality of life, caring behaviors, and self-compassion etc. Most of these studies have been conducted with nurses in non-psychiatric wards, including emergency, surgery, and special care units [16–18]. In Iran, Eyni et al. (2023) found that the professional self-concept, work conscience, and self-efficacy of nurses in psychiatric wards influence Compassion Competence. They suggested that promoting these factors through psychological interventions could enhance Compassion Competence [19]. Compassion Competence in psychiatric nurses is linked to providing emotional care, while Patient Safety Competency ensures the physical health and lives of patients. Despite the importance of both Compassion Competence and Patient Safety Competency in psychiatric wards, these concepts have received less attention compared to non-psychiatric settings due to the unique challenges of psychiatric care. The relationship between these competencies in psychiatric nursing is unclear. Therefore, this study aimed to investigate the relationship between Compassion Competence and Patient Safety Competency among nurses in psychiatric wards.

Method

Type of study

The present study is a descriptive-analytical study that was conducted from January 2024 to April 2024.

Research environment and sampling method

The study population included all nurses working in three psychiatric centers affiliated with Shiraz University of Medical Sciences in southern Iran. Shiraz, the fifth largest city in Iran, has numerous teaching and general hospitals. First, a list of all personnel working in the psychiatric wards of the hospitals was prepared, and then individuals were included in the study according to the inclusion criteria (a total of 203 people). 19 participants were excluded due to meeting the exclusion criteria, and finally 184 questionnaires were analyzed statistically.

Inclusion and exclusion criteria

Inclusion criteria

1. Bachelor's degree in nursing or higher;
2. Employed in a psychiatric unit (at least 3 months);
3. Willingness to participate in the study.

Exclusion criteria

1. Having a chronic, incurable physical or mental illness under treatment;
2. Taking psychiatric medications during the study.

Research tools

Data were collected using a demographic information questionnaire, the Nurses' Compassion Competence Questionnaire (NCCQ), and the Nurses' Patient Safety Competency Questionnaire (NPSCQ).

Demographic survey questionnaire

The questionnaire collects data about age, Job experience (year), experience in psychiatry ward (year), number of night shifts per month, working hours per week, Hours of exercise per week, gender, education level, marital status, ward, job position, employment status, work shift, type of exercise (if any), living situation, job satisfaction, chronic physical illness under treatment, experience of facing a crisis in the past 6 months, Completed a communication skills course within the past 6 months and Completion of a patient safety course within the past 6 months [6, 12, 20].

Compassion competence assessment questionnaire

This questionnaire developed by Youngjin Lee et al. (2016) consists of 17 questions covering three dimensions: communication (8 questions), sensitivity (5 questions), and insight (4 questions). The questionnaire is scored on a 5-point Likert scale, with scores of 1, 2, 3, 4, and 5 corresponding to "Strongly disagree", "Disagree", "Neither Agree nor Disagree", "Agree", and "Strongly agree" respectively. The total score of the questionnaire is obtained by averaging the scores of all items. The score range is from 17 to 85, with subscale scores ranging from 8 to 40 for communication, 5–25 for sensitivity, and 4–20 for insight. Higher scores indicate greater Compassion Competence. In Lee's study, to determine the Test validity, the internal consistency coefficient for the entire test was found to be in the range of 0.30 to 0.64. In addition, to confirm Convergent validity, the correlation between the Compassion Competence Scale and the Park's Emotional Intelligence Scale (EIS), the Sprecher's Compassionate Love Scale (CLS), and the Davis's Interpersonal Reactivity Index (IRI) was calculated, which were found to be statistically significant ($p<0.01$). The Reliability of the questionnaire was assessed using Cronbach's alpha, with a value of 0.91 for the entire test, 0.88 for the Communication dimension, 0.77 for the Sensitivity dimension, and 0.73 for the Insight dimension. The reliability of the tools on retest after 2 weeks was found to be 0.80 for the developed tool [21].

This tool was psychometrically evaluated in Iran by Niroumandan and Ahi (2018) among Iranian nurses working in emergency, surgical, psychiatric, and intensive care units. The validity of the tools was assessed using exploratory factor analysis, content validity, and discriminant validity. The results of the exploratory factor analysis extracted a 3-factor structure, explaining 53.6% of the total variance of the test. A quantitative method was used to determine the content validity. Discriminant validity was assessed using the Professional Quality of Life (ProQOL) tools for the three subscales of communication, sensitivity, and insight and the total score was calculated to be 0.56, 0.52, 0.76, and 0.58, respectively. In an internal consistency analysis, the correlation coefficients between the overall Compassion Competence score and the three subscales of Communication, Sensitivity, and Insight were found to be 0.76, 0.77, and 0.81, respectively. Reliability using Cronbach's alpha for the subscales of communication, sensitivity, insight, and the overall tools was 0.81, 0.76, 0.90, and 0.85, respectively. Finally, the Persian version was extracted as a 16-item questionnaire [22]. Reliability of the tools was assessed using Cronbach's alpha in this study, which was 0.87 for the entire tools.

Patient safety competency assessment questionnaire

This questionnaire developed by Nam-Joo et al. (2014) consists of 41 questions that assess three dimensions: attitude (14 questions), skill (21 questions), and knowledge (6 questions). The questionnaire is scored on a 5-point Likert scale. For the knowledge dimension, the scores range from "I don't know" to "I know," for the attitude dimension, the scores range from "I strongly disagree" to "I strongly agree," and for the skill dimension, the scores range from "I'm not very comfortable" to "I'm very comfortable." The corresponding numerical scores are 1, 2, 3, 4, and 5, respectively. The score range is from 41 to 205, with subscale scores ranging from 14 to 70 for attitude, 21–105 for skills, and 6–30 for knowledge. Higher scores indicate a higher level of nurse competence in patient safety. The construct validity of the questionnaire was assessed using exploratory and confirmatory factor analysis at the higher order level, with a total variance explained of 62.73%. The overall reliability and the reliability of the attitude, skill, and knowledge dimensions were reported as 0.90, 0.79, 0.91, and 0.85, respectively, using Cronbach's alpha [23].

This tools was psychometrically evaluated among nurses working in psychiatric wards in Iran by Torkaman et al. (2022). Construct validity was assessed using convergent validity, content validity (quantitative), face validity (qualitative), and exploratory factor analysis. The final tools consisted of 40 items and 3 domains. Content Validity Index was calculated to be 0.89. To determine the internal consistency of the tools, Cronbach's alpha was calculated for the overall instrument and the attitude, skill, and knowledge dimensions, yielding 0.95, 0.79, 0.95, and 0.95, respectively. Additionally, to assess the tools's reliability, the questionnaire was completed by 20 nurses at a 2-week interval using the test-retest method. The correlation coefficient between the two tests was found to be 0.92 for the overall test and 0.89, 0.92, and

0.89 for the knowledge, attitude, and skill dimensions, respectively [24]. The reliability of the tools was calculated using Cronbach's alpha in this study, which was 0.92 for the overall tools.

Ethics

After obtaining ethical approval from the university's research ethics committee (IR.SUMS.NUMIMG.REC.1402.099), obtaining permission from the tool developers to use them in the research via email, and obtaining the necessary permits, the researcher visited the hospitals where the research was conducted. After providing the necessary explanations about the research objectives to the hospital officials, a list of nurses working in the wards was obtained, and individuals were enrolled in the study according to the inclusion criteria. Informed consent forms were distributed to all participants and collected after completion. All information obtained from participants was kept confidential and they were provided with explanations in this regard and it was emphasized that they have the right to withdraw from the study at any stage of the research process.

Data analysis

Descriptive and analytical statistical methods were used to analyze the collected data. Qualitative data were described using frequency and percentage, and quantitative data were described using mean, standard deviation, and median. To investigate the relationship between the variables of Compassion Competence and Patient Safety Competency with demographic variables, Pearson correlation tests were used for quantitative variables, independent t-tests for two-level categorical variables, and ANOVA for multi-level categorical variables with a normal distribution. Since the frequency was less than 30 in some strata of demographic variables, ward and employment status, resulting in non-normally distributed data, the Kruskal-Wallis test was used to examine the association. To investigate the relationship between the main study variables, Pearson correlation test was used. Additionally, linear regression test was employed to examine the role of Compassion Competence dimensions and demographic variables on predicting Patient Safety Competency. Data analysis was conducted using SPSS version 22 developed by IBM.

Table 1 Compassion Competence and Patient Safety Competency scores and their dimensions in the studied individuals

Variable	Minimum	Maximum	Mean ± SD
Compassion Competence	2.81	5	3.98 ± 0.46
Communication	2.57	5	4.04 ± 0.48
Sensitivity	2.40	5	4.05 ± 0.56
Insight	2	5	3.79 ± 0.62
Patient Safety Competency	2.40	4.78	3.56 ± 0.44
Skill	2.05	5	3.63 ± 0.58
Attitude	2.57	4.50	3.67 ± 0.34
Knowledge	1	5	3.06 ± 0.77

Results

Most participants in the study were women (54.3%, 100 people), had a bachelor's degree (85.3%, 157 people), were married (68.5%, 126 people), and worked in the men's ward (51.6%, 95 people). The table also shows that most of the study participants were nurses (90.8%, 167 people). The Employment status of most participants in this study was permanent (71.2%, 131 people), rotating shift work (93.5%, 172 people), and low job satisfaction (53.8%, 99 people). Most participants were not engaged in any sports (46.7%, 86 people) and lived with their families (90.8%, 167 people) in terms of living arrangements. The majority of participants had completed a course related to patient communication skills (62%, 114 people) and a course related to patient safety (64.7%, 119 people) in the past 6 months. Most participants were not undergoing treatment a chronic physical illness (88%, 162 people) and did not report experiencing a crisis in the past 6 months (85.9%, 158 people).

The Mean and standard deviation of participants' age were 37.61 ± 8.57 years, Job experience was 13.53 ± 8.15 years, experience in psychiatry ward was 9.19 ± 7.24 years, number of night shifts per month was 5.07 ± 2.59, working hours per week was 46.14 ± 10.60, and hours of exercise per week was 2.31 ± 3.13. Due to the skewness of the data in this variable, mean is not an appropriate measure of central tendency, therefore median was also calculated, which was 1 for this variable.

The Mean and standard deviation of the total Compassion Competence score of nurses was 3.98 ± 0.46 and the scores of the dimensions of sensitivity (4.05 ± 0.56), insight (3.79 ± 0.62) and communication (4.04 ± 0.48). The mean and standard deviation of the total patient safety competency for nurses were 3.56 ± 0.44 and the scores of the dimensions of attitude (3.67 ± 0.34), knowledge (3.06 ± 0.77) and skill (3.63 ± 0.58) (Table 1). To examine the relationship between the two variables of Compassion Competence and Patient Safety Competency with quantitative demographic variables of nurses, Pearson correlation test was used. According to the results of this test, the quantitative demographic variables of nurses, including age, Job experience, experience in psychiatry ward, number of night shifts per month, working hours per week, and hours of exercise per week, did not show a statistically significant correlation ($p > 0.05$) (Tables 2 and 3). To examine the association of both Compassion Competence and Patient Safety Competency variables with qualitative demographic variables, independent t-tests, ANOVA, and Kruskal-Wallis tests were used.

Table 2 Association of quantitative demographic variables with compassion competence scores of the studied individuals

Variable	Score	Age	Job experience	Experience in psychiatry ward	Number of night shifts per month	Working hours per week	Hours of exercise per week
Score	1						
Age	$r=0.029$ $p=0.699$	1					
Job Experience(year)	$r=-0.009$ $p=0.908$		1				
Experience in psychiatry ward(year)	$r=0.048$ $p=0.516$			1			
Number of night shifts per month	$r=0.137$ $p=0.063$				1		
Working hours per week	$r=0.002$ $p=0.981$					1	
Hours of exercise per week	$r=0.015$ $p=0.838$						1

Table 3 Association of quantitative demographic variables with Patient Safety Competency scores of the studied individuals

Variable	Score	Age	Job experience	Experience in psychiatry ward	Number of night shifts per month	Working hours per week	Hours of exercise per week
Score	**1**						
Age	$r=0.070$ $p=0.345$	**1**					
Job experience(year)	$r=0.045$ $p=0.542$		**1**				
Experience in psychiatry ward(year)	$r=-0.007$ $p=0.927$			**1**			
Number of night shifts per month	$r=-0.060$ $p=0.419$				**1**		
Working hours per week	$r=0.045$ $p=0.542$					**1**	
Hours of exercise per week	$r=-0.043$ $p=0.558$						**1**

According to the test results, nurses did not show a statistically significant association with Compassion Competence and Patient Safety Competency based on gender, education level, marital status, ward, job position, employment status, shift work, type of exercise, living situation, job satisfaction, chronic physical illness under treatment, Completion of a patient safety course within the past 6 months and experience of facing a crisis in the past 6 months ($p>0.05$). The only variable of Completed a communication skills course within the past 6 months showed a statistically significant relationship with the compassion Competence and Patient Safety Competency ($p<0/05$)(Table 4). To investigate the relationship between Compassion Competence and Patient Safety Competency, Pearson correlation coefficient was used, considering the normal distribution of the data. According to the results of this test, nurses' Compassion Competence showed a significant correlation with Patient Safety Competency ($r=0.458$, $p<0.001$) (Table 5).

To examine the role of Compassion Competence dimensions and demographic variables in predicting Patient Safety Competency, a linear regression test was used. To begin, we employed a univariate regression test to determine the extent to which each demographic variable individually predicts the response variable. The variable of completing a communication skills course in the past 6 months was identified as a moderator and entered into the linear regression model. The results of this study indicated that the communication dimension of Compassion Competence does not have a significant correlation with Patient Safety Competency ($p>0.05$). In contrast, the sensitivity dimension has a significant correlation with Patient Safety Competency ($p<0.05$), such that for every one-unit increase in sensitivity, Patient Safety Competency increases by an average of 1.7%. In addition, insight had a significant relationship with Patient Safety Competency ($p<0.05$), such that for each one-unit increase in insight, Patient Safety Competency

Table 4 Association of qualitative demographic characteristics with Compassion Competence and Patient Safety Competency scores of the studied individuals

Variable	Type	Frequency	Percent Frequency	Mean ± SD	Significance Level	Mean ± SD	Significance Level
				Patient Safety Competency		Compassion Competence	
Gender	Female	100	54.3	3.56 ± 0.49	0.99	3.99 ± 0.50	0.80
	Male	84	45.7	3.56 ± 0.37		3.78 ± 0.40	
Marital Status	Single	58	31.5	3.51 ± 0.44	0.29	3.93 ± 0.46	0.32
	Married	126	68.5	3.58 ± 0.44		4 ± 0.46	
Educational Level	Bachelor	157	85.3	3.54 ± 0.43	0.18	3.98 ± 0.45	0.87
	Master and above	27	14.7	3.67 ± 0.48		4 ± 0.51	
Job position	Nurse	167	90.8	3.56 ± 0.44	0.63	3.97 ± 0.47	0.22
	Head Nurse	17	9.2	3.61 ± 0.37		4.11 ± 0.36	
Work Shift	Fixed	12	6.5	3.45 ± 0.41	0.36	3.94 ± 0.34	0.76
	Rotating	172	93.5	3.57 ± 0.44		3.98 ± 0.47	
Ward	Women	48	26.1	3.55 ± 0.51	0.78	4.01 ± 0.52	0.35
	Men	95	51.6	3.58 ± 0.42		3.98 ± 0.45	
	Emergency	28	15.2	3.50 ± 0.42		3.89 ± 0.43	
	Child and Adolescent	10	5.4	3.55 ± 0.24		4.09 ± 0.37	
	ECT	3	1.6	3.79 ± 0.41		4.25 ± 0.16	
	Total	184	100	3.56 ± 0.44		3.98 ± 0.46	
Employment Status	Permanent	131	71.2	3.58 ± 0.45	0.62	3.98 ± 0.44	0.38
	Contractual	14	7.6	3.44 ± 0.24		4.12 ± 0.50	
	Contingent	6	3.3	3.42 ± 0.39		3.66 ± 0.52	
	Company	6	3.3	3.64 ± 0.38		4.15 ± 0.43	
	Project	27	14.7	3.53 ± 0.49		3.97 ± 0.52	
	Total	184	100	3.56 ± 0.44		3.98 ± 0.46	
Living situation	Without Family	17	9.2	3.60 ± 0.38	0.72	3.94 ± 0.53	0.72
	With Family	167	90.8	3.56 ± 0.44		3.99 ± 0.45	
Job satisfaction	Low	99	53.8	3.58 ± 0.38	0.13	4 ± 0.44	0.77
	Medium	79	42.9	3.51 ± 0.50		3.96 ± 0.50	
	Much	6	3.3	3.86 ± 0.45		3.90 ± 0.36	
	Total	184	100	3.56 ± 0.44		3.98 ± 0.46	
Completed a communication skills course within the past 6 months	Yes	114	62	3.62 ± 0.42	0.02	4.04 ± 0.46	0.04
	No	70	38	3.47 ± 0.45		3.90 ± 0.45	
Completion of a patient safety course within the past 6 months	Yes	119	64.7	3.60 ± 0.42	0.08	4.02 ± 0.49	0.17
	No	65	3.53	3.48 ± 0.46		3.92 ± 0.40	
Living with a chronic physical illness under treatment	Yes	22	12	3.68 ± 0.37	0.18	3.96 ± 0.37	0.84
	No	162	88	3.54 ± 0.44		3.98 ± 0.47	
Having a crisis within the last 6 months	Yes	26	14.1	3.64 ± 0.46	0.34	3.98 ± 0.56	0.94
	No	158	85.9	3.55 ± 0.43		3.98 ± 0.44	
Type of Exercise	None	86	46.7	3.59 ± 0.47	0.79	3.96 ± 0.47	0.88
	Movement exercise	55	29.9	3.52 ± 0.41		3.99 ± 0.42	
	Strength exercises	34	18.5	3.56 ± 0.43		4.04 ± 0.51	
	Group exercises	9	4.9	3.53 ± 0.25		3.95 ± 0.45	
	Total	184	100	3.56 ± 0.44		3.98 ± 0.46	

Table 5 Association of Compassion Competence and Patient Safety Competency among the studied individuals

Patient Safety Competency	Variable
Compassion competence	$r=0.458$ $p<0.001$

Table 6 The role of compassion competence dimensions and demographic variables in predicting patient safety competency

Predictive Variables	B*	Confidence interval	Significance Level
Communication Dimension	0.087	−0.068, 0.243	0.269
Sensitivity Dimension	0.177	0.039, 0.315	0.012
Insight Dimension	0.141	0.017, 0.264	0.026
Completed a communication skills course within the past 6 months	−0.101	−0.221, 0.020	0.102

R2 = 0.227 B = Unstandardized coefficients

increased by an average of 1.4%. The variable of completing a communication skills course in the past 6 months did not show a significant relationship with competence in patient safety ($p>0.05$). The dimensions of communication, sensitivity, and insight from the Compassion Competence variable and the variable of completing a communication skills course in the past 6 months together explained $R^2=22.7\%$ of the variance in patient safety competency (Table 6).

Discussion

The results of this study show that the sensitivity and insight dimensions of compassion competence exhibited the highest and lowest scores among nurses working in psychiatric wards. In line with the findings of the present study, the studies of Hong et al. (2021) and An et al. (2019) can be cited, which reported the highest score among the dimensions of Compassion Competence to be for the dimension of sensitivity and the lowest score to be for the dimension of insight among nurses in non-psychiatric wards [18, 25] Nurses who are sensitive to patients closely monitor their emotional changes and pay attention to their needs and caregivers [6]. Active listening is one of the essential skills for paying attention to patients' needs. Nurses working in psychiatric wards actively listen to patients, overcome communication barriers, and gain better control over their needs and conditions [21]. Insight refers to a nurse's capacity to comprehend patients' problems and unspoken emotions, drawing upon professional knowledge to treat them and their needs respectfully while maintaining emotional control during patient care [6]. If a nurse provides necessary care for psychiatric patients with respect, the patient may feel more comfortable, even if those actions are unpleasant [21]. Addressing this issue is essential for enhancing nurses' professional insight and fostering a comprehensive understanding of patients [22]. In contrast to the findings of the present study, the study by Dincer et al. (2024) reported higher Compassion Competence scores for nursing students than for nurses in the present study, with the dimensions of Sensitivity and Communication reporting the highest and lowest means, respectively [26]. One of the possible reasons for the difference in results between the mentioned study and the present study could be that the students have not officially entered the workplace and have not been exposed to the potential stressors and burnout, and therefore, have a high level of compassion for patients. Due to their lack of experience, they have not adequately learned the principles of communication with patients, and as a result, they have received lower scores in the communication dimension.

The results of this study show that the attitude and knowledge of the dimensions of patient safety competency had the highest and lowest scores among nurses working in psychiatric wards. Consistent with the findings of the present study, the studies of Lee et al. (2016) and Chang et al. (2023) also reported that the attitude and knowledge dimensions had the highest and lowest mean scores, respectively [27, 28]. Ayyad et al. (2024) stated that more than half of the participants had a positive attitude towards reporting their errors [29]. Alanazi et al. (2022) stated that nurses who had a positive attitude towards patient safety were less likely than others to encounter incidents that threatened patient safety, such as falls, medication errors, infections, etc., during patient care. To foster a positive attitude toward patient safety among nurses, it is essential that they not face punitive actions from hospital officials when reporting errors. Additionally, efforts should be made to promote a teamwork culture and establish proper communication to further enhance this attitude [30]. Biresaw et al. (2020) stated that nurses with a high level of knowledge can not only identify medical errors but also interpret and distinguish between them, preventing their continuation and eliminating the complications they cause. Learning about patient safety and updating related information can improve nurses' knowledge levels, a feature that is often overlooked in educational programs [31]. The Health Organizations' emphasis on improving nurses' ability to identify errors and prevent their consequences could lead to an improvement in the knowledge dimension of Patient Safety Competency [12]. In contrast to the findings of the present study, the study by Kakemam et al. (2024) reported lower nurse safety competency scores than the present study, with the skill and knowledge dimensions having the highest and lowest mean scores, respectively [32]. Possible reasons for the difference in results between the present study and the aforementioned study include differences in the research setting

and, consequently, different healthcare systems. As Kakemam study also suggests, nurses working in emergency wards, intensive care units and surgical wards are likely to have higher skills than psychiatric nurses due to their greater involvement in providing physical care.

The results of the present study showed that Compassion Competence and Patient Safety Competency did not have any statistically significant correlations with any of the demographic variables except for having taken a communication skills course in the past 6 months. In line with the findings of the present study, Habibi Soola et al. (2022) also found that the number of night shifts per month, Job experience, and experience in the emergency ward were not significantly associated with nurses' Patient Safety Competency [33]. Jeong et al. (2024) conducted a study to examine the effects of a compassion-improvement program on nurses' Compassion Competence and empathic communication. They found that the program, which included training in effective communication, had a positive impact on participants' Compassion Competence [34]. It is crucial to employ interpersonal communication skills to demonstrate empathy towards patients and their families [6]. Dewar and Nolan (2013) asserted that conversations expressing gratitude between nurses, patients, and their families facilitate the provision of compassionate care [7]. Hemmati et al. (2014) concluded that a statistically significant correlation exists between nurse-patient communication skills and the safety of patients in intensive care units. Effective verbal and nonverbal communication between nurses and patients enables nurses to comprehend patients' needs and plan accordingly [35]. Inconsistent with the findings of the present study, Alhassan et al. (2019) found that communication skills training had no effect on the empathy of nursing and midwifery students [36]. One possible explanation for this discrepancy is that the students' empathy was assessed a short time after training (1 day), and it is possible that if they had been given more opportunity to apply their learning in interactions with patients, their empathy levels would have increased over time. Torkaman et al. (2022) found in their study that nurses' marital status, gender, Ward, Job experience, educational level, job position and work shift were significantly associated with their Patient Safety Competency. Married nurses with a master's degree, working in the nursing office with a supervisor position and a fixed shift had higher Patient Safety Competency [12]. Possible reasons for the discrepancy between the results of this study and the present study include the exclusion of nurses working in nursing offices in the present study and the difference in the cities where the studies were conducted, resulting in a difference in the healthcare system that affects patient safety.

A weak and statistically significant correlation was found between Compassion Competence and Patient Safety Competency. This finding is consistent with Kim et al. (2020) study, which showed an negative and significant correlation between Compassion Competence and missed nursing care. Nurses with high Compassion Competence can minimize missed nursing care by establishing communication [16] and emotional support for patients, being sensitive to their needs and having the knowledge to identify those needs [16]. The study results of Ryu et al. (2022) demonstrated a significant correlation between nurses' compassion satisfaction in internal medicine, surgery, intensive care, emergency, women's and children's wards with patient safety activities. compassion satisfaction for patients led to improved job satisfaction and organizational commitment among nurses, resulting in higher emotional stability and stronger communication skills, ultimately improving patient safety measures [37]. Compassion satisfaction is an outcome of improved Compassion Competence, which includes a sense of satisfaction and happiness from connecting with patients and a passion for fulfilling one's duties [16].

Another finding of the present study shows that the two dimensions of sensitivity and insight from the Compassion Competence dimensions predict Patient Safety Competency. In the psychiatric unit, by closely monitoring patients, nurses can detect emotional changes and mitigate potential risks posed by mood fluctuations. Many patients may experience an increased urge to self-harm following positive mood shifts [38]. Therefore, it is essential for the nurse to assess patients' emotional and physical needs in such conditions, drawing upon her professional knowledge to provide comprehensive care. The results of the study by Sert et al. (2024) show that the dimensions of communication and sensitivity have a positive and significant impact on caring behaviors, such that as the nurse's ability in the mentioned dimensions increases, their caring behaviors also improve [39]. This section of the results is inconsistent with the findings of the present study, which predicted the dimensions of sensitivity and insight as competencies in patient safety among nurses. The reasons for this difference may include the different study populations and the focus on nurses' caring behaviors in the Sert study. Among demographic variables, having taken a communication skills course in the past 6 months did not predict Patient Safety Competency. This finding is inconsistent with the study by Mohammadi (2020), which showed that dimensions of nurses' communication characteristics predict patient safety culture [40]. Possible reasons for the difference in results include differences in dependent variables.

Conclusion

This study aimed to investigate the relationship between Compassion Competence and Patient Safety Competency among nurses working in psychiatric wards of Shiraz University of Medical Sciences affiliated hospitals in 2024.

Overall, the results of this study showed a weak and significant correlation between Compassion Competence and Patient Safety Competency among nurses working in psychiatric wards. This is important because establishing a therapeutic relationship characterized by compassion and providing care that is as safe as possible for patients is crucial for their recovery. It is suggested that greater attention be paid to safety-related knowledge, error analysis, and compassionate insight into the needs of nursing students and nurses in education programs. This would enhance their overall nursing competencies. One limitation of this study is the use of questionnaires for data collection, which may influence how individuals respond. Given the specialized conditions and nature of the psychiatry unit, this study should also be conducted among nurses working in other units. In addition, future studies should investigate and compare nurses' Compassion Competence with other healthcare professions, investigate and compare nurses' Patient Safety Competency with other healthcare professions, examine the barriers and facilitators to improve Compassion Competence and Patient Safety Competency in nurses.

Abbreviations

SPSS Software package used for Statistical Analysis

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Author contributions

L.Z, G.S, and B.T. participated in study design, data collection, and data analysis. M.Sh participated in data collection and data analysis. All authors read and approved the final manuscript.

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Data availability

Data will not be shared because of the confidentiality of the nurses' data.

Declarations

Ethics approval and consent to participate

Informed consent obtained from participants was written. The study was approved by the Ethics Committee of Shiraz University of Medical Sciences (IR.SUMS.NUMIMG.REC.1401.015).

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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