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EFFECT OF EMOTIONAL INTELLIGENCE ON CLINICAL COMPETENCY AMONG STAFF NURSES IN A PRIVATE HOSPITAL IN KARACHI

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Abstract

Background: *Emotional intelligence (EI) is increasingly recognized as an important attribute for nurses who work in emotionally demanding and fast-paced healthcare settings. Clinical competency is a multidimensional construct that covers technical skills as well as communication, emotion management and critical thinking.*
Objective: *To assess the role of EI in the clinical competency of staff nurses working in a private hospital in Karachi.*
Methods: *A quantitative correlational study was conducted among 50 staff nurses. EI was measured with a 50-item instrument (Cronbach's α = .812) and clinical competency with a 35-item instrument (Cronbach's α = .792). Data were analyzed using descriptive statistics, reliability analysis and Pearson's correlation.*
Results: *Most participants were female (76.0%), aged 26–30 years (66.0%) and held a Bachelor of Nursing degree (66.0%). A very strong, positive and statistically significant correlation was found between EI and clinical competency (r = .957, p < .001, N = 50).*
Conclusion: *Staff nurses with higher EI demonstrated higher clinical competency. Integrating EI development into nursing education, continuing professional development and hospital policy may strengthen clinical competency, improve patient care and support nurse well-being. Larger, multi-center studies are recommended to confirm these findings.*

Introduction

Nurses deal with a wide range of clinical situations every day, and the emotionally demanding and fast-paced nature of healthcare settings requires them to combine strong technical skills with emotional self-control and interpersonal skills. In this context, emotional intelligence (EI), the ability to perceive, understand and manage one's own emotions and those of others (Mayer, Salovey and Caruso, 2008), has emerged as an important professional attribute. Goleman (1998) similarly described EI as the capacity to recognize our own feelings and those of others, to motivate ourselves, and to manage emotions well in ourselves and in our relationships. More recent evidence emphasizes the role of EI in the clinical competence of nursing students (Aghabarary and Khedmatizare, 2025).

Clinical competency in nursing is multidimensional: it involves integrating knowledge, skills, attitudes and clinical judgment, and applying technical, communication and clinical reasoning skills to deliver quality care (Aghabarary and Khedmatizare, 2025). EI in healthcare professionals has been linked to more caring behavior towards patients (Nightingale et al., 2018), and higher EI among nurses has been associated with better work performance (Turjuman and Alilyyani, 2023). This study examines the relationship between EI and clinical competency among staff nurses.

In nursing, EI is comprised of self-awareness, self-regulation, motivation, empathy and social skills (Goleman, 1998). These aspects assist nurses in handling the complexities of clinical practice, interacting with patients and colleagues, and coping with the stresses associated with the profession. For example, Turjuman and Alilyyani (2023) found that higher EI among nurses was positively associated with job performance and work engagement, both of which are important for effective patient care.

Although the advantages are clear, the integration of EI training into nursing curricula and continuing education has not been systematized. This gap is important to address because there is evidence that EI skills can be developed through training. In a quasi-experimental study, Kikanloo et al. (2019) found that EI skills training improved the professional competence and reduced the academic stress of nursing students.

Emotional Intelligence and Clinical Competency

Nurses with high EI tend to manage their clinical responsibilities more effectively. One of the main benefits of high EI is improved communication: nurses with higher EI interact better with patients, colleagues and other professionals, and communication skills and job satisfaction have been shown to mediate the relationship between nurses' EI and the quality of hospital services (Ranjbar Ezzatabadi et al., 2012). EI is also important for coping with stress; it has been described as a behavioral buffer against occupational stress that supports better work performance (Alsufyani et al., 2022).

EI also contributes to clinical decision-making. EI has been found to influence the clinical ability of nursing interns (Dou et al., 2022) and to be related to clinical decision-making among nurses in neonatal intensive care units (Ayed, 2025), which suggests that emotionally intelligent nurses may reason and decide more effectively under pressure. In addition, patient-centered care is shaped by EI, particularly through empathy, which helps nurses to understand patients' expectations and to respond with caring behavior (Nightingale et al., 2018).

Empirical Evidence

There is evidence supporting a positive association between EI and clinical competence. Significant positive correlations have been reported among nursing students (Aghabarary and Khedmatizare, 2025) and among nurses working in special care units (Dehnavi et al., 2022), and a quasi-experimental study suggests that EI skills training can improve the professional competence of nursing students (Kikanloo et al., 2019). However, much of this evidence comes from student samples or from other countries, so the present study examines the relationship among staff nurses in a private hospital in Karachi.

Problem Statement

Although the importance of clinical competence in nursing is recognized, occupational stress remains a challenge for nurses and can limit their performance (Alsufyani et al., 2022). Measuring and developing the EI of clinical staff nurses has been proposed as an approach to improving the clinical care environment (Codier, Kooker and Shoultz, 2008). Understanding the relationship between EI and clinical competency is therefore important for improving the effectiveness of healthcare services and the well-being of nurses.

Research Objectives

1. To assess the role of EI in clinical competency among staff nurses in a private hospital in Karachi.
2. To determine the strength and direction of the relationship between EI and clinical competency among staff nurses.
3. To describe the demographic characteristics (gender, age, education and marital status) of the participating staff nurses.
4.

Research Questions

1. What is the role of EI in clinical competency among staff nurses in a private hospital in Karachi?
2. What is the statistically significant relationship between EI and clinical competency among staff nurses, and what are its strength and direction?
3. What are the demographic characteristics (gender, age, education and marital status) of the participating staff nurses?

Significance of the Study

The relationship between EI and nursing performance is important for policy in nursing education and professional development. A better understanding of how EI relates to clinical competency can support targeted training that focuses on communication, decision-making and stress management. This study adds to the existing literature by providing evidence from staff nurses in a private hospital in Karachi, and it may support policies on professional development and curriculum revision. Strengthening the EI of healthcare workers may in turn benefit patient care, job satisfaction and the quality of services. The study also serves as a starting point for future research on integrating EI into the training and curricula of interns and into workplace learning.

Literature Review

Theoretical Framework

Daniel Goleman's model of EI, which identifies self-awareness, self-regulation, motivation, empathy and social skills, provides a useful framework for understanding EI in nursing practice (Goleman, 1995; 1998). These domains influence a nurse's capacity to deliver optimal patient care and to work collaboratively with other healthcare professionals.

Key Components of Goleman's EI Model:

- **Self-Awareness:** The ability to comprehend one's emotions, as well as appreciating one's strengths and weaknesses.
- **Self-Regulation:** The ability to control one's emotions and impulsive reactions, including anger, in a constructive manner and in a morally upright manner.
- **Motivation:** The presence of passion and purpose which fuels actions as opposed to motivating factors externally.
- **Empathy:** The recognition and understanding of emotions from the perspective of the person experiencing them.
- **Social Skills:** The ability to communicate, create and maintain relationships, as well as influence people in a constructive manner (Antonopoulou, 2024).

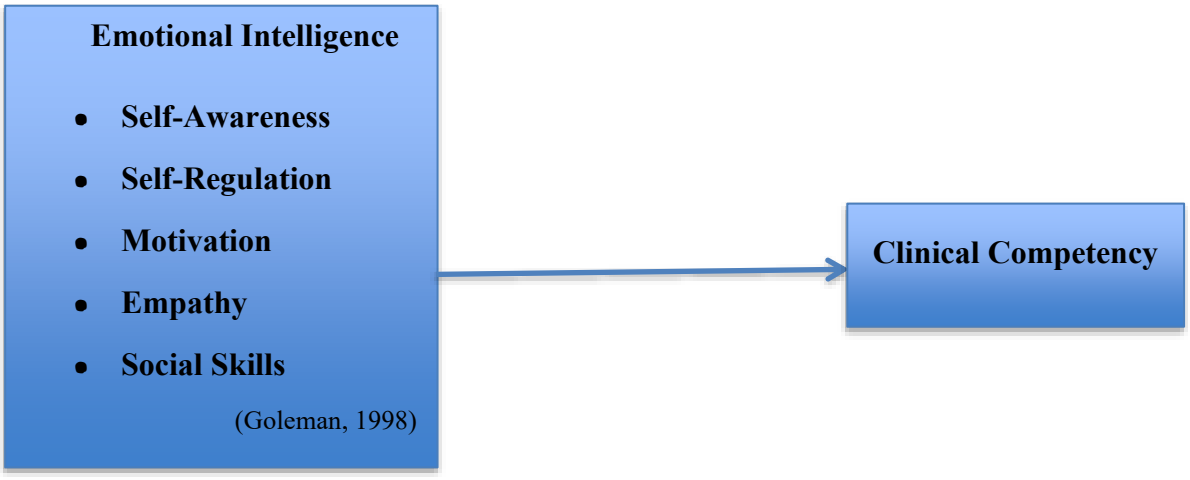

Figure 1: Conceptual framework of the study (adapted from Goleman, 1998)

Emotional Intelligence and Clinical Competency

EI encompasses the ability to perceive, understand and manage emotional reactions in oneself and in others. In nursing, clinical competence refers to the integration of knowledge, skills, attitudes and clinical judgment to provide safe and effective patient care (Aghabarary and Khedmatizare, 2025). Studies suggest that higher EI not only enhances interpersonal relationships between nurses and patients but is also associated with better clinical practice (Dehnavi et al., 2022; Aghabarary and Khedmatizare, 2025).

Clinical Competency and EI: The Measurement Perspective

Although EI is an important part of nursing competence, clinical competence itself must be assessed with validated instruments. Two widely used instruments are described below.

Nurse Competence Scale (NCS): Meretoja, Isoaho and Leino-Kilpi (2004) developed the NCS, a psychometrically tested instrument that measures nurse competence across several domains, including the helping role, teaching and coaching, diagnostic functions, managing situations, therapeutic interventions, ensuring quality and the work role.

Competency Inventory for Registered Nurses (CIRN): This tool was developed and validated by Liu et al. (2009) to assess the competencies of nurses in Macao, particularly in diagnostic functions and quality assurance, as well as professional mentoring.

Systematic Review Evidence: Zeydi et al. (2022) conducted a systematic review and meta-analysis of the clinical competence of Iranian nurses and highlighted that clinical competence is a multidimensional construct.

Park, Rajaguru and Kim (2024) found that nursing students' EI was significantly correlated with their clinical competency ($r = .457$, $p < .001$), which suggests that EI is positively related to clinical competency. They emphasized the need to strengthen EI through nursing education in order to improve students' clinical competencies, which in turn may optimize patient care and clinical outcomes.

Imani, Zandyeh and Mahdiyoun (2019) reported a direct, positive and significant linear correlation between EI and clinical skills among anesthesia and operating room students. Mean EI scores were 87% for anesthesia students and 89% for operating room students, indicating high levels of EI, and clinical competence scores were satisfactory at 84% and 86%, respectively. The authors concluded that EI should be developed further to improve clinical competency in these fields.

Smith and Street (2022) found that EI moderates the relationship between clinical communication self-efficacy and caregiver burden, which underscores the importance of EI in effective caregiving and clinician communication.

Methodology

Study Design and Setting

A quantitative, cross-sectional, correlational study was conducted among staff nurses at Modern Hospital Karachi, a private hospital in Karachi, Pakistan.

Participants and Sampling

The study population comprised staff nurses working at the hospital. A non-probability convenience sampling technique was used to recruit 50 staff nurses who were available during the data collection period and were willing to participate. Staff nurses working in clinical areas of the hospital who agreed to participate were included, whereas nurses who were on leave or who did not provide direct patient care were excluded.

Instruments

Data were collected with a structured questionnaire that included demographic items (gender, age, education and marital status) and two instruments. EI was measured with a 50-item instrument and clinical competency was measured with a 35-item instrument. In this study, both instruments showed acceptable internal consistency (Cronbach's α = .812 and .792, respectively).

Data Collection

Data were collected using self-administered questionnaires. After the purpose of the study was explained and informed consent was obtained, the questionnaires were distributed to the nurses in their work units at a time that did not interfere with patient care. Completed questionnaires were collected and checked for completeness. Fifty completed questionnaires were included in the analysis; one participant did not report marital status.

Data Analysis

Data were analyzed using IBM SPSS Statistics version 27. Descriptive statistics (frequencies and percentages) were used to summarize the demographic characteristics, Cronbach's alpha was used to assess internal consistency, and Pearson's correlation coefficient was used to examine the relationship between EI and clinical competency. The level of significance was set at $p < .05$.

Ethical Considerations

Permission to conduct the study was obtained from the hospital administration. Participation was voluntary, informed consent was obtained from all participants, and anonymity and confidentiality of the data were maintained.

Results

Demographic Data:

Of the 50 participants, 12 (24.0%) were male and 38 (76.0%) were female (Table 1). Female nurses therefore formed the large majority of the sample, accounting for more than three-quarters of the participants.

Table 1: Gender of Participants (N = 50)

Gender				
	Frequency	Percent	Valid Percent	Cumulative Percent
Male	12	24.0	24.0	24.0
Female	38	76.0	76.0	100.0
Total	50	100.0	100.0	

Marital status was recorded for 49 of the 50 participants; one response (2.0%) was missing. Of the 49 valid responses, 27 (55.1%) were married and 22 (44.9%) were unmarried (Table 2). The single missing value does not change the interpretation, but it is noted for transparency.

Table 2: Marital Status of Participants (N = 50)

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	27	54.0	55.1	55.1
	Unmarried	22	44.0	44.9	100.0
	Total	49	98.0	100.0	
Missing	System	1	2.0		
Total		50	100.0		

Of the 50 participants, 17 (34.0%) held a diploma and 33 (66.0%) held a Bachelor of Nursing degree (Table 3). No participant fell outside these two categories, and there were no missing data for this variable.

Table 3: Education of Participants (N = 50)

Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Diploma	17	34.0	34.0	34.0
Bachelors of Nursing	33	66.0	66.0	100.0
Total	50	100.0	100.0	

Most participants (n = 33, 66.0%) were aged 26–30 years, followed by those aged 22–25 years (n = 9, 18.0%) and 31–35 years (n = 8, 16.0%) (Table 4). The sample therefore consisted mainly of young nurses in their twenties and early thirties, which suggests a relatively early-career workforce.

Table 4: Age of Participants (N = 50)

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	22-25	9	18.0	18.0	18.0
	26-30	33	66.0	66.0	84.0
	31-35	8	16.0	16.0	100.0
	Total	50	100.0	100.0	

Reliability

The EI instrument (50 items) showed a Cronbach's alpha of .812 (Table 5), which indicates good internal consistency. Alpha values below .70 are generally considered unacceptable, values of .70 or above acceptable, and values above .80 good (George and Mallery, 2003). The EI scale can therefore be considered reliable for this sample.

Table 5: Reliability Statistics for the Emotional Intelligence Scale

Reliability Statistics

Cronbach's Alpha	No of Items
.812	50

The clinical competency instrument (35 items) showed a Cronbach's alpha of .792 (Table 6), which falls in the acceptable range and indicates that the items are reasonably consistent in measuring the construct (George and Mallery, 2003).

Table 6: Reliability Statistics for the Clinical Competency Scale

Reliability Statistics

Cronbach's Alpha	No of Items
.792	35

Correlations

Pearson's correlation showed a very strong, positive and statistically significant relationship between EI and clinical competency ($r = .957$, $p < .001$, $N = 50$; Table 7). This indicates that higher EI scores were accompanied by higher clinical competency scores. The coefficient of determination ($r^2 \approx .92$) suggests that the two variables share most of their variance. A coefficient of this size is considerably larger than those usually reported in comparable studies and should therefore be interpreted with caution (see Discussion).

For a sample of 50, this strong and statistically significant correlation indicates that EI and clinical competency are closely associated among the nurses studied. However, because the design is correlational, the result shows association only and does not establish that EI causes higher clinical competency. The finding does suggest that EI deserves attention in training and continuing education in healthcare.

Table 7: Pearson Correlation between Emotional Intelligence and Clinical Competency

Correlations

		Emotional Intelligence (EI)	Clinical Competency (CC)
Emotional Intelligence (EI)	Pearson Correlation	1	.957**
	Sig. (2-tailed)		<.001
	N	50	50
Clinical competency (CC)	Pearson Correlation	.957**	1
	Sig. (2-tailed)	<.001	
	N	50	50

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

Discussion

The present study examined the role of emotional intelligence (EI) in the clinical competency of staff nurses in a private hospital in Karachi. The principal finding is a very strong, positive and statistically significant correlation between EI and clinical competency ($r = .957$, $p < .001$). In other words, nurses who reported higher levels of EI also tended to report higher levels of clinical competency. This answers the research questions and meets the objectives of the study.

Interpretation of the main finding

The direction of this relationship is consistent with the existing literature. Aghabarary and Khedmatizare (2025) identified EI as a predictor of clinical competence in nursing students, and Imani, Zandyeh and Mahdiyoun (2019) reported a direct, positive and significant relationship between EI and clinical skills among anesthesia and operating room students. Park, Rajaguru and Kim (2024) likewise found a significant positive correlation between EI and clinical competency among nursing students, and Dehnavi et al. (2022) found a significant direct correlation between EI and clinical competence among nurses working in special care units.

Zeydi et al. (2022) further described the clinical competence of nurses as multidimensional, which fits the broad view of competency adopted in this study.

However, the strength of the association observed here ($r = .957$) is considerably higher than the moderate correlation reported by Park, Rajaguru and Kim (2024), which was $r = .457$. A coefficient of this size implies that EI and clinical competency share about 92% of their variance ($r^2 \approx .92$), which is unusually high for two distinct constructs and should be interpreted with caution. Differences in the study population (practicing staff nurses rather than students), the measurement instruments, the small sample, possible overlap in item content between the two instruments, and the fact that both variables were most likely measured through self-report may all have contributed to a stronger apparent relationship than is usually seen in similar research.

Possible explanations from the EI model

Goleman's model (1995; 1998) offers a useful way of understanding why EI and clinical competency move together. Self-awareness and self-regulation help nurses stay composed during emergencies and heavy workloads, which supports safe and timely clinical judgment. Dou et al. (2022) found that EI influences the clinical ability of nursing interns, which is in line with the idea that emotionally skilled nurses think more clearly and solve problems better under pressure. Empathy and social skills improve communication with patients and colleagues; Dehnavi et al. (2022) reported a correlation between EI and clinical competence among nurses in special care units, and Ranjbar Ezzatabadi et al. (2012) found that EI affects the quality of hospital services through communication skills and job satisfaction. EI also supports coping with occupational stress (Alsufyani et al., 2022), and Smith and Street (2022) found that EI moderates the relationship between clinical communication self-efficacy and caregiver burden. Since communication, emotion management and critical thinking are all part of clinical competency (Aghabarary and Khedmatizare, 2025), a close relationship between EI and competency is theoretically expected.

Participant characteristics

Most respondents were female (76.0%), which is consistent with the female predominance of the global nursing workforce (World Health Organization, 2020). Two thirds of the participants were aged 26–30 years, suggesting a relatively young, early-career workforce, and 66.0% held a Bachelor of Nursing degree. Marital status was also recorded; previous research has reported differences in nurses' professional competency by marital status (Karami, Farokhzadian and Foroughameri, 2017). Because this study did not test whether these characteristics influenced the EI–competency relationship, they are reported as context only and should not be taken as explanations of the main finding.

Reliability of the instruments

Both instruments showed acceptable internal consistency: the 50-item EI tool had a Cronbach's alpha of .812 (good) and the 35-item clinical competency tool had .792 (acceptable to good). This supports the dependability of the data, although reliability alone does not guarantee that the scales measured the intended constructs in this particular population.

Implications for practice and education

The findings suggest that EI should be treated as a core professional skill rather than a personal extra. Evidence indicates that EI can be developed: Kikanloo et al. (2019) found that EI skills training was associated with better professional competence and lower academic stress among nursing students, Foster et al. (2017) reported that EI increases over time in nursing students, and Foster et al. (2015) reviewed EI education in pre-registration nursing programs. Hospital administrators and nurse educators in Karachi may therefore consider including EI-focused modules on communication, empathy, stress management and decision-making in orientation programs, in-service training and nursing curricula. EI could also be considered in leadership development and in the appraisal of clinical performance.

Limitations

Several limitations should be acknowledged. First, the sample was small (N = 50) and was drawn from a single private hospital, so the results cannot be generalized to all nurses in Karachi or Pakistan. Second, the correlational design shows association only; it cannot establish that higher EI causes higher clinical competency, as the relationship could be bidirectional or influenced by other variables such as experience, education and work environment. Third, self-reported data may be affected by social desirability and common-method bias, which may partly explain the unusually high correlation. Fourth, demographic variables were described but were not controlled for in the analysis.

Recommendations for future research

Future studies should use larger, randomly selected samples from several public and private hospitals, combine self-report with supervisor or observer ratings of clinical competency, and apply regression or mediation models that control for age, gender, education, marital status and experience. Longitudinal or experimental designs, such as evaluating an EI training program, would help to clarify whether improving EI leads to measurable gains in clinical competency.

Conclusion

This study found a very strong, positive and statistically significant relationship between emotional intelligence and clinical competency among staff nurses in a private hospital in Karachi ($r = .957$, $p < .001$). Nurses with higher EI tended to demonstrate higher clinical competency, which is consistent with Goleman's model and with earlier research on nurses and nursing students. The finding highlights EI as an important component of safe, effective and compassionate nursing practice, alongside technical knowledge and skills. Nursing educators, hospital administrators and policymakers are encouraged to incorporate EI development into curricula, continuing education and staff appraisal. Given the small single-site sample and the correlational design, the results should be confirmed through larger, multi-center and longitudinal studies before firm conclusions about causality are drawn.

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