

## Association of Socio-Emotional Competency and Self-Efficacy: A Cross Sectional Study Among Undergraduate Nursing Students

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### ABSTRACT

**Background:** Socio-emotional competence and self-efficacy are essential determinants of nursing students' personal development, clinical performance, and ability to adapt to professional challenges. Understanding their association can guide educational strategies aimed at improving emotional regulation, confidence, and academic success.

**Objective:** To determine the association between socio-emotional competence and self-efficacy among undergraduate nursing students in Hayatabad, Peshawar.

**Methods:** An analytical cross sectional study was conducted from October 2024 to January 2025 across three nursing institutions: Khyber Medical University Institute of Nursing Sciences, Northwest College of Nursing, and Pak International Nursing College. Using convenient random sampling, 215 students from the 2nd to 8th semesters were included, while 1st semester students were excluded. Data were collected through a self-administered questionnaire comprising the 25 item socio-emotional Competence Scale (Cronbach  $\alpha = 0.95$ ) and the 10 item General Self-Efficacy Scale (Cronbach  $\alpha = 0.88$ ). Scores were categorized as high or low based on the median, and data were analyzed using SPSS version 28 with chi square and Pearson correlation test.

**Results:** The sample included 54.9% males and 45.1% females. The mean socio-emotional competence score was 78.45 (SD = 8.35) and the mean self-efficacy score was 32.49 (SD = 4.14). A significant positive correlation was found between socio-emotional competence and self-efficacy ( $r = 0.561$ ,  $p < 0.001$ ).

**Conclusion:** The study concluded that higher socio-emotional competence is significantly associated with higher self-efficacy among nursing students, indicating that emotional and social skills are vital for confidence and effective academic and clinical functioning.

**Keywords:** Academic Performance, Nursing Education, Self-Efficacy, Socio-Emotional Competence, Undergraduate Nursing Students.

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### Disclaimers

*Conflict of Interest:* None declared

*Data/Supplements:* Available on request.

*Funding:* None

*Ethical Approval:* IRB&EC/2024-HIS/0178

*Study Registration:* N/A

*Acknowledgments:* N/A

### Article Info

*Received:* 13 October 2025, *Accepted:* 27 December 2025,

*Published Online:* 31 December 2025



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**How to Cite:** Ullah A, Shakeela, Mian FA, Sanallah, Khan S, Ullah I. Association of Socio-emotional Competency and Self-Efficacy: A Cross-Sectional Study Among Undergraduate Nursing Students. *J Mod Health Rehab Sci.* 2025;2(4):187.

Available from: <https://jmhrs.com/index.php/jmhrs/article/view/187>

## Introduction

Self-efficacy refers to the belief in one's ability to perform specific tasks or achieve desired goals, influencing motivation, persistence, and resilience when faced with challenges (1). Socio-emotional competence, on the other hand, encompasses the capacity to understand and regulate one's emotions while engaging positively with others, incorporating abilities such as emotional regulation, empathy, and effective communication (2). Research suggests that higher self-efficacy is positively associated with stronger socio-emotional competence, as confident individuals are more adept at managing emotions and developing healthy interpersonal relationships, which in turn enhance both academic and personal outcomes (3, 4). Academic self-efficacy has been identified as one of the strongest predictors of socio-emotional competence, highlighting the interplay between motivation, cognitive beliefs, and emotional social skills in fostering holistic student development (1). Within this framework, core components of socio-emotional competence include critical thinking, self-directed learning, creativity, emotional intelligence, problem solving, and teamwork (5).

In the nursing profession, emotional intelligence plays an essential role in promoting patient safety and clinical effectiveness, as it enables nurses to establish therapeutic relationships grounded in empathy and communication (6). Psychological intelligence has been recognized as a key factor in maintaining workforce stability and reducing stress, thereby contributing to a healthier and more resilient healthcare environment (7). It has been proposed that well developed interpersonal and emotional skills better prepare nursing students for the professional demands of clinical practice (8). Emotional self-efficacy, specifically, exerts an indirect yet significant influence on social behavior and mental well-being by enhancing individuals' capacity to manage negative emotions and sustain resilience, particularly during adolescence and early adulthood (9). Emotional intelligence further reflects an individual's ability to monitor, identify, and apply emotional cues both self-related and interpersonal in solving problems and regulating behavior (10). Empirical findings have also shown that students' confidence in their instructors and a positive learning orientation mediate the relationship between emotional intelligence and learning outcomes, while academic self-efficacy directly predicts improved performance (11).

Nursing students encounter uniquely stressful environments characterized by academic pressure, professional expectations, and emotional demands that require continuous adaptation (12). Many face transitional challenges, including separation from home, altered routines, increased responsibility, and exposure to clinical practice, often accompanied by inadequate social and emotional support (13). These stressors can lead to

anxiety, emotional instability, and reduced self-esteem, which may hinder their capacity to perform effectively in both academic and clinical settings (14). Individuals with a strong sense of self-efficacy demonstrate greater confidence in managing such demands, whereas those with low self-efficacy often struggle to complete assigned tasks or cope with pressure (15). In nursing education, the development of socio-emotional competence and self-efficacy is therefore fundamental for enabling students to deliver compassionate care, manage stress effectively, communicate efficiently, and collaborate within multidisciplinary teams (1).

The present study aims to explore the association between socio-emotional competence and self-efficacy among undergraduate nursing students in Hayatabad. To the best of available knowledge, no prior research has been conducted in this region to investigate this relationship. This study seeks to address this gap and provide valuable insights that may guide nursing authorities and educational institutions in designing programs and interventions that strengthen both socio-emotional skills and self-efficacy among nursing students, thereby enhancing their preparedness for the complex emotional and clinical challenges of professional healthcare practice.

## Materials and Methods

An analytical cross sectional research design was employed to examine the association between socio-emotional competence and self-efficacy among undergraduate nursing students. The study was conducted over a period of four months, from October 2024 to January 2025. Data collection took place at three institutions: The Northwest College of Nursing (private institute), the Pak International Nursing College (private institute), and the Institute of Nursing, Khyber Medical University (government institute), located in Peshawar, Pakistan.

A convenient random sampling technique was used to recruit participants. The sample size was determined using the RaoSoft calculator, with a 5 percent margin of error, a 95 percent confidence interval, and a final sample size of 215 students. The target population included nursing students from the second to the eighth semester of the Bachelor of Science in Nursing (BSN) program. First semester students were excluded because they had recently joined the program, and their socio-emotional competence and self-efficacy were not yet sufficiently developed.

Data were collected using a structured, the questionnaire comprising two standardized scales. The first instrument was the socio-emotional Competence Scale (SECS), which included 25 items representing five domains: self-awareness, social awareness, self-management, relationship management, and responsible decision making. The SECS demonstrated a high internal

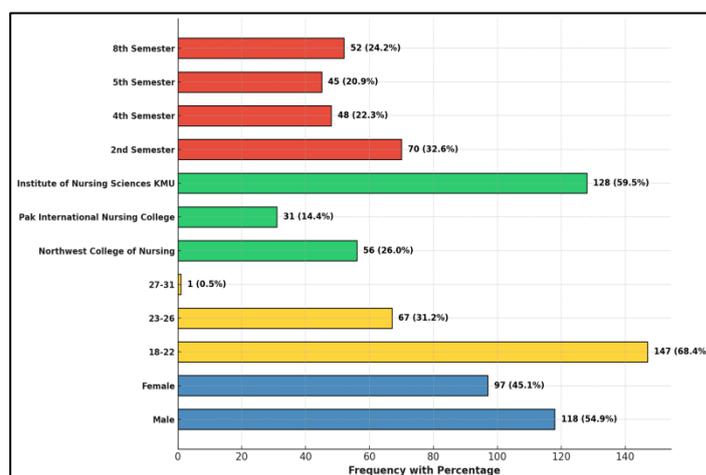
consistency, with a Cronbach alpha value of 0.95 (16). The second instrument was the General Self-Efficacy Scale (GSES), developed by Ralf Schwarzer in 1999 following Bandura's social cognitive theory (Bandura, 1997). The GSES consisted of 10 items designed to assess individuals' general sense of perceived self-efficacy, with a Cronbach alpha of 0.88 (17). Both scales used a four point Likert response format: exactly true, moderately true, barely true, and not at all true.

Data collection commenced after obtaining formal ethical approval from the Institutional Review Board (IRB) of the Northwest Institute of Health Sciences, Peshawar, Pakistan, under the approval number IRB&EC/2024-HIS/0178. Written informed consent was obtained from all participants before inclusion in the study, and anonymity and confidentiality of responses were maintained throughout. The study followed the principles outlined in the Declaration of Helsinki for ethical conduct of research involving human participants.

The questionnaires were distributed to eligible students in their respective classrooms, with clear instructions provided to ensure accurate completion. Participation was voluntary, and no incentives were offered. The collected data were screened for completeness and accuracy before analysis. All statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics, including mean and standard deviation, were used to summarize demographic variables and scale scores. The chi square ( $\chi^2$ ) test was applied to determine associations between socio-emotional competence and self-efficacy scores. A p value of less than 0.05 was considered statistically significant for all analyses.

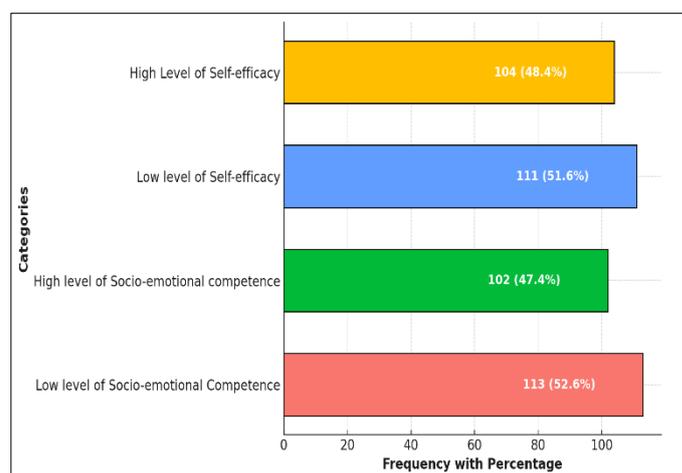
## Results

A total of 215 undergraduate nursing students participated in the study. Of these, 118 (54.9%) were male and 97 (45.1%) were female, representing a nearly equal gender distribution. The majority of participants (68.4%) were aged between 18–22 years, followed by 31.2% aged 23–26 years, and only 0.5% aged 27–31 years. Most students were enrolled at the Institute of Nursing Sciences, Khyber Medical University (59.5%), while 26.0% were from Northwest College of Nursing and 14.4% from Pak International Nursing College. Regarding academic level, 32.6% of participants were in the 2nd semester, 22.3% in the 4th, 20.9% in the 5th, and 24.2% in the 8th semester (Figure 1). socio-emotional competence had a mean score of 78.45 (SD = 8.35), with a median of 80.00, while self-efficacy showed a mean of 32.49 (SD = 4.14) and a median of 33.00. Both variables exhibited moderate variability, indicating a relatively consistent response distribution among participants (Table 1).



**Figure 1: Socio Demographic Variables**

Based on median split categorization, 52.6% of students demonstrated low socio-emotional competence and 47.4% showed high socio-emotional competence. Similarly, 51.6% had low self-efficacy, while 48.4% had high self-efficacy (Figure 2).



**Figure 2: Levels of socio-emotional Competence and Self-efficacy**

A chi square test revealed a statistically significant association between socio-emotional competence and self-efficacy ( $\chi^2 = 23.30$ ,  $df = 1$ ,  $p < 0.001$ ), suggesting that students with higher socio-emotional competence were more likely to report greater self-efficacy (Table 2). Furthermore, Pearson correlation analysis confirmed a strong positive relationship between socio-emotional competence and self-efficacy ( $r = 0.561$ ,  $p < 0.001$ ), indicating that as socio-emotional competence increased, self-efficacy also improved significantly (Table 3). The findings demonstrated a significant positive correlation between socio-emotional competence and self-efficacy among undergraduate nursing students ( $r = 0.561$ ,  $p < 0.001$ ). Students with higher socio-emotional competence tended to exhibit greater confidence and resilience in academic and clinical contexts, confirming that emotional and social skills play a key role in developing professional belief and performance.

**Table 1: Measures of Central Tendency and Dispersion**

	Socio-emotional Competence	Self-efficacy
Mean	78.45	32.49
Median	80.00	33.00
Std. Deviation	8.35	4.14
Minimum	46.00	16.00
Maximum	95.00	40.00

**Table 2: Association of Socio-emotional Competence and Self-Efficacy**

Level of Socio-emotional Competence	Level of self-efficacy		Chi-Square test
	Low Level of Self-Efficacy	High Level of Self-efficacy	P value
Low Level	76	37	<.001
High Level	35	67	

**Table 3: Correlation between Socio-emotional competence and Self-efficacy**

		Socio-emotional Competence	Self-Efficacy
Socio-emotional Competence	Pearson Correlation	1	.561
	Sig. (2-tailed)		.000
	N	215	215
Self-Efficacy	Pearson Correlation	.561	1
	Sig. (2-tailed)	.000	
	N	215	215

## Discussion

The present study explored the association between socio-emotional competence and self-efficacy among undergraduate nursing students in Peshawar. It revealed important insights into their emotional and psychological preparedness for professional practice. Out of 215 participants, 47.4 percent demonstrated higher levels of socio-emotional competence, while 52.6 percent showed lower levels. These findings aligned with those of Carmen et al. (2022), who reported sufficient socio-emotional competence among recently graduated university students preparing for teaching practice (18). The similarity between the two studies suggested that while a considerable proportion of students possessed adequate emotional and social skills, a substantial number still required structured training to strengthen these competencies. This emphasized the importance of implementing institutional interventions such as workshops and mentorship programs to cultivate self-awareness, emotional regulation, and interpersonal effectiveness among nursing students.

Regarding self-efficacy, the results indicated that 48.4 percent of participants scored high, while 51.6 percent had

lower scores. These findings were similar to those of Adisasmito et al., who reported that 61.11 percent of nursing students in Indonesia showed moderate self-efficacy and 38.89 percent exhibited high levels (19). Both studies highlighted that most nursing students tend to fall within a moderate to low range of self-efficacy, emphasizing the need for ongoing support and educational strategies to boost confidence and resilience. Conversely, studies involving professional teachers consistently showed higher self-efficacy levels, likely reflecting their greater experience, maturity, and exposure to complex professional challenges (20). This difference suggests that self-efficacy tends to develop through sustained professional engagement and responsibility, a developmental stage that undergraduate students have yet to fully reach.

The mean self-efficacy score in the present study was 32.49, which differed markedly from a causal correlational study conducted in the United States that reported a mean of 21.60 (21). The discrepancy could be explained by contextual and demographic factors, including cultural variations in self-belief, differing academic expectations, and the influence of social support systems. Furthermore, Karimi et al. (2019) found higher self-efficacy among

medical students than nursing students in Iran, which may be attributed to differences in professional identity formation, institutional culture, and perceived academic prestige (21). Similarly, López Crespo et al. (2021) reported higher socio-emotional competence among Spanish nursing students than that observed in this study (22). This contrast was likely due to the inclusion of formal socio-emotional training modules within the Spanish nursing curriculum, which emphasized empathy, emotional regulation, and communication skills. These findings suggested that incorporating structured socio-emotional learning components into the Pakistani nursing education system could significantly enhance students' professional readiness and emotional maturity.

Conversely, findings from South Asian countries, such as India, reported similar challenges in developing socio-emotional competence among nursing students, with lower scores linked to academic stress, inadequate coping strategies, and a lack of institutional mental health support (23). This regional similarity reinforced the influence of educational context, workload, and psychosocial support systems on students' emotional functioning. It also highlighted the broader need for reforms in nursing education to integrate psychological well-being programs alongside clinical and theoretical training.

The analysis of demographic characteristics such as age, gender, and semester of study revealed no significant association with socio-emotional competence or self-efficacy. This finding contradicted traditional assumptions that older students or those with greater clinical experience would demonstrate higher levels of both constructs. The uniformity observed might be explained by the relatively homogenous age group and limited exposure to diverse clinical environments among participants. Most respondents were early-semester students (63 per cent in the 2nd, 4th, 5th, and 8th semesters), which could have minimized experiential variation across the sample.

This study provided valuable evidence on the psychological preparedness of nursing students but was not without limitations. The use of a convenient random sampling method and the inclusion of participants from selected institutions in one city limited the generalizability of the results to all nursing students in Pakistan. Self-reported data may also have introduced social desirability bias, as students could have overestimated their competence or confidence. Additionally, the cross-sectional design restricted the ability to establish causality between socio-emotional competence and self-efficacy.

Despite these limitations, the study had notable strengths. It utilized validated instruments with high reliability to assess both constructs and provided region specific data that addressed a significant gap in the existing literature. The findings contributed to the understanding of emotional and psychological development within nursing

education and underscored the need for institutional strategies to foster these essential competencies.

It was recommended that nursing colleges and universities incorporate structured socio-emotional training, reflective practice sessions, and mentorship programs into their curricula. Faculty development workshops focusing on emotional intelligence and student engagement could further enhance the learning climate. Future studies should adopt longitudinal designs to explore how self-efficacy and socio-emotional competence evolve across different academic years and clinical exposures. Expanding the research to multiple regions and comparing public and private institutions could also offer a more comprehensive understanding of the factors shaping emotional competence in nursing education. Overall, the study reaffirmed that cultivating self-efficacy and socio-emotional competence is essential for preparing nursing students to deliver compassionate, patient centered care and to thrive in the demanding clinical environment of modern healthcare.

## Conclusion

This study established a significant positive relationship between socio-emotional competence and self-efficacy among undergraduate nursing students, indicating that both play a vital role in academic success and professional readiness. The findings showed that nearly half of the participants demonstrated lower levels of these attributes, emphasizing the need for strengthening emotional and interpersonal skills within nursing education. As socio-emotional competence and self-efficacy are fundamental for effective communication, compassionate care, and resilience in clinical settings, enhancing these qualities can lead to improved patient outcomes, safer healthcare practices, and more empathetic, confident nursing professionals.

## Authors' Contributions

ICMJE authorship criteria	Detailed contributions	Authors
Substantial Contributions	Conception or Design of the work	1, 4,5,6
	Data acquisition	1,2,3
	Data analysis or interpretation	6,5
Drafting or Reviewing	Draft the work	6
	Review critically	3,4
Final approval	Final approval of the version to be published.	1, 2, 3, 6
Accountable	Agreement to be accountable for all aspects of the work.	1, 2, 3, 4 5, 6

## References

- Artino ARJ. Academic self-efficacy: From educational theory to instructional practice. *Perspect Med Educ.* 2012;1(2):76-85. doi:10.1007/s40037-012-0012-5
- Lane RD, Smith R. Levels of emotional awareness: Theory and measurement of a socio-emotional skill. *J Intell.* 2021;9(3):1-20. doi:10.3390/jintelligence9030036
- Moradi A, Chemelnezhad M. Predicting emotional social competence based on academic engagement, self-efficacy and perception of school climate in high school students. *Iran Evol Educ Psychol.* 2021;3(4):574-582

4. Usán Supervía P, Quílez Robres A. Emotional regulation and academic performance in the academic context: The mediating role of self-efficacy in secondary education students. *Int J Environ Res Public Health*. 2021;18(11):1-12. doi:10.3390/ijerph18116061
5. Kim SH, Shin S. Social emotional competence and academic achievement of nursing students: A canonical correlation analysis. *Int J Environ Res Public Health*. 2021;18(4):1-10. doi:10.3390/ijerph18041914
6. Khademi E, Abdi M, Saeidi M, Piri S, Mohammadian R. Emotional intelligence and quality of nursing care: A need for continuous professional development. *Iran J Nurs Midwifery Res*. 2021;26(4):361-367. doi:10.4103/ijnmr.IJNMR\_22\_20
7. Gottfredson RK, Becker WJ. How past trauma impacts emotional intelligence: Examining the connection. *Front Psychol*. 2023;14:1067509. doi:10.3389/fpsyg.2023.1067509
8. Moropa TD, Matshaka L, Makhene A. Enhancing effective interpersonal interactions through soft skills: Perceptions of nurse educators. *BMC Nurs*. 2025;24(1):380. doi:10.1186/s12912-025-02043-3
9. Doménech P, Tur-Porcar AM, Mestre-Escrivá V. Emotion regulation and self-efficacy: The mediating role of emotional stability and extraversion in adolescence. *Behav Sci (Basel)*. 2024;14(3):1-12. doi:10.3390/bs14030234
10. Bru-Luna LM, Martí-Vilar M, Merino-Soto C, Cervera-Santiago JL. Emotional intelligence measures: A systematic review. *Healthc (Basel)*. 2021;9(12):1-19. doi:10.3390/healthcare9121701
11. Wang X. Exploring positive teacher student relationships: The synergy of teacher mindfulness and emotional intelligence. *Front Psychol*. 2023;14:1301786. doi:10.3389/fpsyg.2023.1301786
12. Aryuwat P, Holmgren J, Asp M, Radabutr M, Lövenmark A. Experiences of nursing students regarding challenges and support for resilience during clinical education: A qualitative study. *Nurs Rep*. 2024;14(3):1604-1620. doi:10.3390/nursrep14030127
13. Worsley JD, Harrison P, Corcoran R. Bridging the gap: Exploring the unique transition from home, school or college into university. *Front Public Health*. 2021;9:634285. doi:10.3389/fpubh.2021.634285
14. Gu Y, Gu S, Lei Y, Li H. From uncertainty to anxiety: How uncertainty fuels anxiety in a process mediated by intolerance of uncertainty. *Neural Plast*. 2020;2020:8866386. doi:10.1155/2020/8866386
15. Maddux J. Self-efficacy: The power of believing you can. *Handb Posit Psychol*. 2012;1:227-287.
16. Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The general self-efficacy scale: multicultural validation studies. *The Journal of psychology*, 139(5), 439-457.
17. Munir H, Naz S, Khan JUD, Taj T, Kashif M, Muhammad D. Association between socio-emotional competence and self-efficacy of nurse educators in Peshawar. *Pak J Med Health Sci*. 2023;17(6):72-74.
18. Carmen RG, Olga BG, Beatriz M. socio-emotional competence and self-efficacy of future secondary school teachers. *Educ Sci*. 2022;12(3):1-12. doi:10.3390/educsci12030184
19. Ronzon T, Gurria P, Carus M, Cingiz K, El-Meligi A, Hark N, et al. No subjective health indicators among older adults: A covariance structure analysis. *Sustain*. 2025;11(1):1-14. doi:10.1016/j.resenv.2025.100208
20. Tschannen-Moran M, Hoy AW. Teacher efficacy: Capturing an elusive construct. *Teach Teach Educ*. 2001;17(7):783-805. doi:10.1016/S0742-051X(01)00036-1
21. Faraji A, Karimi M, Azizi SM, Janatolmakan M, Khatony A. Evaluation of clinical competence and its related factors among ICU nurses in Kermanshah, Iran: A cross sectional study. *Int J Nurs Sci*. 2019;6(4):421-425. doi:10.1016/j.ijnss.2019.09.007
22. López-Crespo G, Blanco-Gandía MC, Valdivia-Salas S, Fidalgo C, Sánchez-Pérez N. The educational e portfolio: Preliminary evidence of its relationship with student's self-efficacy and engagement. *Educ Inf Technol*. 2022;27(4):5233-5248. doi:10.1007/s10639-021-10827-2
23. Rani A. Occupational stress in relation to teacher self-efficacy and spiritual intelligence of women teachers. *Biosci Biotechnol Res Commun*. 2020;13(4):2217-2225. doi:10.21786/bbrc/13.4/89