

# Relationship Between Emotional Intelligence and Self-Esteem among Nursing Students

SAGE Open Nursing  
Volume 10: 1–6  
© The Author(s) 2024  
Article reuse guidelines:  
sagepub.com/journals-permissions  
DOI: 10.1177/23779608241252248  
journals.sagepub.com/home/son



Fekry Bsharat, MSN<sup>1</sup> 

## Abstract

**Introduction:** Nursing students must be able to detect the standpoints and demands of various sorts of individuals, as well as be competent in taking into account individual emotional reactions, self-confidence, stress management, and social role promotion.

**Objective:** The purpose of this study was to assess the relationship between emotional intelligence and self-esteem among fourth-year nursing students.

**Methods:** The study was a cross-sectional study. Data were collected from 225 nursing students through a convenience sampling method in spring 2023 at Arab American University. The instruments of the study included “Schutte Self Report Emotional Intelligence Test” and the “Rosenberg self-esteem scale.”

**Results:** The analysis indicated that the emotional intelligence mean was  $151.3 \pm 1.9$  (ranging from 33 to 165), which is high. Also, the analysis indicated that the self-esteem of the nursing students was high  $24.3 \pm 3.5$  (ranging from 0 to 30). Furthermore, the analysis showed that there was a moderately positive relationship between nurses’ emotional intelligence and self-esteem.

**Conclusion:** The emotional intelligence and self-esteem among fourth-year nursing students were high. Also, self-esteem was found to have a moderately positive relationship with emotional intelligence and utilizing emotions.

## Keywords

nursing students, self-esteem, emotional intelligence

Received 21 November 2023; Revised 7 April 2024; accepted 15 April 2024

## Introduction

The ability to realize, regulate, and effectively navigate emotions is known as emotional intelligence (EI) (Sharon & Grinberg, 2018). It involves the ability to notice, analyze, and control one’s own, others’, and groups’ emotions (Serrat, 2017). It entails of two independent ideas: emotion-related cognitive capacity and behavioral inclinations, and self-perceptions of one’s capability to perceive and comprehend emotions (Petrides & Furnham, 2006). Intellect and EI function independently, with only 20% of lifetime achievement due to IQ and the rest due to EI, which includes motivation, impulse control, tenacity, hope, and empathy (Goleman, 1996).

Emotional intelligence is broadly used in organizations to improve personal and professional performance (Boyatzis, 2018; Kermanshahi & Sala-Roca, 2018). Nursing requires emotional labor, including controlling and conveying emotions. Lecturers and researchers should emphasize on empowering EI to enhance the profession (Harazneh et al., 2015; Nair & Lee, 2016). Nurses who score high on the EI scale

are more empathetic, caring, compassionate, and resilient (Nightingale et al., 2018).

## Literature Review

Emotional intelligence is a crucial factor in nursing students’ performance and retention, helping them overcome clinical obstacles, enhance leadership skills, and improve patient safety (Cleary et al., 2018; Foster et al., 2017; Štiglic et al., 2018). Numerous studies show that EI levels increase with age and among first- and final-year nursing students. It is essential for successful clinical settings, leadership abilities, and patient safety in nursing (Ayed et al., 2023; Foster et al., 2017; Štiglic et al., 2018; Toqan et al., 2022).

<sup>1</sup>Faculty of Nursing, Arab American University, Jenin, Palestine

### Corresponding Author:

Fekry Bsharat, Faculty of Nursing, Arab American University, Jenin, Palestine.  
Email: fekry.bsharat@aaup.edu



Emotional intelligence may help student nurses manage their own and their patients' emotions by displaying authentic emotional reactions, being empathic, and conveying emotions without causing conflict (Maloney-Codrington, 2020). It also aids in coping with innate feelings in a nurse-patient relationship, such as anger and dissatisfaction (Hendricks, 2018). Nursing students may manage many clinical situations by seeking to see the problem from the patient's perspective and empathizing with their feelings. Emotional intelligence abilities in nurses create a genuine concern for patients' well-being and health, highlighting the spirit of nursing and caring (Costa and Faria, 2015; Pence, 2010).

Assessing emotional abilities should consider other people's psychological domains, such as self-esteem, which signifies self-satisfaction and worth. Self-esteem is described as the emotional reaction to the variance between the actual self and the ideal self (Guindon, 2009). Evaluations can include one dimension (competence or value), both dimensions (competence and value), or a combination of dimensions, such as academic, family, or physical domains (Nader-Grosbois & Fiasse, 2016).

Self-esteem significantly impacts nursing students' professionalization, behavior, well-being, mental health, care quality, and professional skills. It also influences the career identity of graduating nursing students (Mruk, 2013; Valizadeh et al., 2016). Therefore, it is essential to prioritize self-esteem in nursing education (Min et al., 2021).

Self-esteem plays a crucial role in fostering EI among nursing students, as demonstrated by a study by Bukhari et al. (2017). Therefore, academic staff should be knowledgeable about techniques to enhance students' self-esteem and EI, thereby enhancing their academic achievements and overall success (Bukhari et al., 2017).

Nursing students need to possess skills to understand different people's perceptions and needs, manage emotional reactions, and promote social roles (Tweedlie & Vincent, 2019). A high level of EI is crucial for maintaining self-equilibrium and confidence in managing life's challenges. It helps students handle stress, promote social roles, and maintain a state of equilibrium within themselves (Jenaabadi, 2014; Khaledian, 2013).

Despite the recognized importance of EI and self-esteem in nursing practice, there may be gaps in the existing literature regarding their relationship specifically among nursing students. Conducting empirical research in this area can contribute to filling this gap, providing evidence-based insights that inform educational practices, curriculum development, and student support initiatives within nursing education programs. Therefore, the purpose of this study was to assess the relationship between EI and self-esteem among fourth-year nursing students.

## Methods

### *Design and Setting*

A cross-sectional study was conducted at Arab American University in spring course 2023. Arab American University

is the largest nursing school in Palestine, with a student body of 2,000 nursing students. The nursing program is four years long and aims to obtain a baccalaureate in nursing. The study involved 500 nursing students in the fourth-year level of the nursing program. The fourth-level students are supposed to be trained in all fields of nursing education, such as medical, surgical, maternity, pediatric, management, psychiatry, and community nursing. Fourth-year nursing students are nearing the completion of their nursing education, making them at a critical juncture in their transition from student to professional nurse. As they prepare to enter the workforce, assessing their EI and self-esteem can provide valuable insights into their readiness for the demands of clinical practice and their overall preparedness to assume professional responsibilities.

### *Research Question*

What is the relationship between EI and self-esteem among nursing students?

### *Sample*

Using Raosoft software, the sample size was determined with the population size held at 500 and the response distribution at 50%. The margin of error and confidence interval were set at 5% and 95%, respectively; 218 was the estimated sample size. In order to combat the attrition rate, 240 students enrolled in this study. The number of students who completed the study and returned the questionnaires was 225.

### *Inclusion and Exclusion Criteria*

Students enrolling in the fourth year of the baccalaureate nursing degree meet the inclusion requirements. Those enrolling in the first-, second-, and third-year levels were excluded.

### *Instruments*

The instrument was composed of three sections; the first included demographic characteristics such as age and gender. The second section was the Schutte Self-Reported Emotional Intelligence Test (SSEIT). The SSEIT, developed by Schutte et al. (1998), was used to measure EI. It consists of 33 items on four subscales: perception of emotions, social skills, self-management of emotions, and emotion utilization. Each item is ranked on a five-point Likert-type scale. The total scale scores ranged from 33 to 165, with higher scores indicating more EI. The tool is valid and reliable, with a Cronbach's alpha of 0.90 (Ciarrochi et al., 2001; Jonker & Vosloo, 2008; Schutte et al., 1998). The Cronbach alpha for the current study was 0.86.

The third section was the Rosenberg Self-Esteem Scale (Rosenberg, 1965). It is a 10-item Likert tool used to measure an individual's global self-esteem. The 10 items are rated on a 0- to 3-point Likert scale from strongly agree

to strongly disagree. Item numbers 2, 5, 6, 8, and 9 have reversed score and they were recoded. The maximum possible score is 30. A high score reflects high self-esteem. This tool has an internal consistency of 0.88 (Rosenberg, 1965). For the present study, the internal consistency was 0.88.

The selection of the Rosenberg Self-Esteem Scale and Schutte's Emotional Intelligence Scale for this study is grounded in their established psychometric properties, relevance to the target population, and ability to provide comprehensive insights into these important constructs. These scales offer a reliable and valid means of assessing key aspects of EI and self-esteem, facilitating a deeper understanding of their relationship and potential implications for nursing education and practice.

### Data Collection

Nursing students were recruited to participate in the study once the researcher received approval to carry it out. The researcher met the vice dean of the nursing school and explained to her the purpose of the study. The researcher was then invited by the vice dean to provide students who indicated a willingness to participate with related study information. Then, the purpose of the study was discussed with the nursing students. The questionnaires were administered by the researcher and the students completed the paper-based questionnaire in English, as all participants studied in English.

### Ethical Consideration

Ethical approval was taken from the Arab American University (IRB 2023/75). The researcher clarified the study's goal to the students. The students were notified that they could leave the study at any time. Students who approved to participate assigned the informed consent. Participants informed that involvement in the study are voluntary and will not influence their educational experience.

### Data Analysis

Data were statistically analyzed using SPSS version 23. Data were provided as a percentage and frequency using descriptive analysis. Pearson correlation test was used to assess the relationship between the variables.

## Results

### Participants' Characteristics

Two hundred and twenty-five nursing students out of 240 nursing students completed the study, with a response rate of 93.8%. The analysis revealed that the majority of the participants, 175 (77.8%), were 22 or less, with 133 (59.1%) being female. Half of them, 113 (50.2%), whose father's occupation is working, and 108 (48.0%), whose mothers

**Table 1.** Demographic Characteristics of the Participants ( $n = 225$ ).

Characteristics		<i>n</i>	(%)
Age	22 year or less	175	77.8
	More than 22 years	50	22.2
Gender	Male	92	40.9
	Female	133	59.1
Father occupation	Employed	74	32.9
	Unemployed	16	7.1
	Free business	22	9.8
	Worker	113	50.2
Mother occupation	House wife	108	48.0
	Employed	81	36.0
	Free business	36	16.0
Birth order	First	82	36.4
	Middle	105	46.7
	Youngest	38	16.9

**Table 2.** Distribution of Emotional Intelligence and Self-Esteem ( $n = 225$ ).

Variable	M	SD
Total emotional intelligence	151.3	1.9
Perception of emotions	47.1	1.1
Social skills or managing others' emotions	40.6	1.0
Managing emotions in the self	36.0	1.0
Utilizing emotions	27.6	0.7
Self-esteem	24.3	3.5

are housewives, Approximately half of them, 105 (46.7%), were middle in birth order, as seen in Table 1.

The analysis indicated that the EI mean was  $151.3 \pm 1.9$  (ranging from 33 to 165), which is high. Also, "perception of emotions" was the highest domain ( $47.1 \pm 1.1$ ), while "utilizing emotions" was the lowest ( $27.6 \pm 0.7$ ). Also, the analysis revealed that the self-esteem of nursing students was high ( $24.3 \pm 3.5$ ), as seen in Table 2.

A Pearson correlation test was applied to test the relationship between EI and self-esteem. The analysis showed that there was a moderately positive relationship between nurses' EI and their self-esteem ( $P < .05$ ). Also, nurses utilizing the emotion domain showed similar results ( $P < .05$ ), as seen in Table 3.

## Discussion

The current study indicated that EI was high among nursing students. Similar to our findings, Budler et al. (2022) indicated that EI in nursing students varies over time with years of schooling and age, implying that EI abilities may be improved. Also, Benson et al. (2010) reported that mean of the EI for first-year students was 98.0, 103.72 for second-year students, 104.56 for third-year students, and 107.80 for

**Table 3.** The Relationship Between Emotional Intelligence and Self-Esteem ( $n = 225$ ).

	Perception of emotions	Social skills or managing others' emotions	Managing emotions in the self	Utilizing emotions	Total emotional intelligence
Variable	r (p)	r (p)	r (p)	r (p)	r(p)
Self-esteem	0.105 0.115	0.090 0.178	0.070 0.299	0.246** 0.001	0.256** 0.001

\*Correlation is significant at level of 0.05.

\*\*Correlation is significant at the 0.01.

fourth-year students, indicating that EI has increased with study year. The findings may imply that emotional abilities may be enhanced. Students may also grow and mature during their education, although other variables outside of the study process may influence the results (Foster et al., 2017). Also, the qualifications of nurses extend beyond their technical knowledge and skills to encompass a range of emotional abilities that are essential for providing high-quality and patient-centered care in healthcare practice. In a study conducted by Kuday & Erdoğan, (2023) found that National Medical Rescue Team nurses scored significantly higher in EI ( $131.45 \pm 6.15$ ) than hospital nurses ( $129.75 \pm 6.01$ ). The emotional abilities are not fixed but can evolve over time, potentially influenced by educational experiences and personal development. Furthermore, the importance of EI in nursing practice is emphasized, highlighting its relevance to providing high-quality and patient-centered care.

According to self-esteem, the current study indicated that nursing students had high self-esteem. Similar to our findings, Shrestha et al. (2018) indicated that 95.3% of nursing students reported good self-esteem, which is similar to our findings. However, this finding contradicts prior research that found students to have a moderate degree of self-esteem (Almansour, 2023; Altaweel et al., 2023; Banappagoudar et al., 2022). This difference may be due to the fact that nursing students in Palestine face political challenges that differ from those in other countries, requiring them to be accountable and professional, which promotes their self-esteem and allows them to make fixed progress toward development and improvement. This positive self-perception not only benefits students throughout their educational journey but also has transformative effects as they embark on their careers as registered nurses, contributing to their success and fulfillment in the nursing profession. In a study conducted on nurses revealed that 70.2% of them have high self-esteem and present that family income, length of time working in the profession and an outstanding event in the career presented significant associations (Santos et al., 2017). The dynamic nature of self-esteem among nursing students and professionals influenced by a combination of personal, cultural, and professional factors. Moreover, the importance of fostering positive self-perception in nursing education and practice is underscored, as it contributes to individual well-being and success in the profession.

In terms of the association between nursing students' EI and self-esteem, the current study found a relatively favorable relationship between nurses' EI and self-esteem. Nurses who used the emotion domain had comparable outcomes. Similar to our findings, Castelino and Mendonca (2023) reported an important positive association between EI and nursing students' self-esteem. Similar results were reported in research conducted among 400 nursing students across four academic levels in Egypt ( $r = 0.307$ ,  $P < .001$ ) (Mohamed, 2019). Emotional intelligence and self-esteem were shown to be positively associated ( $r = 0.704$ ,  $P = .001$ ) among Bachelor Students of Nursing and Midwifery Schools in Hamadan, as individuals with high EI are capable of finding a balance between reason and emotion, which is supported by high self-esteem (Shamsaei et al., 2017). In a study of undergraduate medical students in Nigeria, Nnabuike et al. (2018) found a significant relationship between self-esteem and EI ( $r = 0.237$ ,  $P = .001$ ). Tajpreet and Maheshwari (2015) revealed a favorable relationship between EI and self-esteem ( $r = 0.64$ ) in a study of youths in Faridkot, Punjab. Assessing the relationship between EI and self-esteem among nursing students is essential for promoting student well-being, preparing for clinical practice, enhancing patient-centered care, facilitating personal and professional growth, informing educational interventions, and contributing to research and scholarship in nursing education and practice (Dou et al., 2022). Nurturing EI skills among nursing students can positively impact their self-esteem, ultimately benefiting both their personal development and their effectiveness as healthcare professionals.

### Limitations

As study limitations, the cross-sectional design and self-reported measures were mentioned. The cross-sectional methodology was not used to investigate the causal-effect relationship among variables, and the subjectivity of self-reported surveys is an issue. As a result, further longitudinal investigations are required in the future.

### Conclusions

Fourth-year nursing students had high levels of EI and self-esteem. Furthermore, self-esteem was found to have a relatively favorable association with EI and emotion use.

Emotional intelligence training is vital for nursing students since it enhances both their personal and professional life, as well as their self-esteem.

## Recommendations of the Study

To increase EI among nursing students and prepare them to deal with patients in a variety of clinical settings, EI ideas and domains should be included in the nursing curriculum. Regular educational workshops and seminars for nursing students on how to develop and strengthen students' self-esteem and EI abilities should be held. Further studies are required to explore and assess the impact of carrying out programs on students' self-esteem and EI abilities.

## Acknowledgments

The authors would like to express their thanks to the nursing students who participated in the study.


## Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author received no financial support for the research, authorship, and/or publication of this article.

## ORCID iD

Fekry Bsharat  <https://orcid.org/0009-0002-8584-6541>

## References

- Almansour, A. M. (2023). Self-esteem among nursing students at a public university in Saudi Arabia: A cross-sectional study. *Belitung Nursing Journal*, 9(4), 377. <https://doi.org/10.33546/bnj.2750>
- Altaweel, F., Kamel, N., & Alqahtani, F. (2023). Self-Esteem and determinants of depression among undergraduate nursing students in Dammam, Saudi Arabia. *Medical Archives*, 77(1), 44. <https://doi.org/10.5455/medarh.2023.77.44-48>
- Ayed, A., Malak, M. Z., Alamer, R. M., Batran, A., Salameh, B., & Fashafsheh, I. (2023). Effect of high fidelity simulation on clinical decision-making among nursing students. *Interactive Learning Environments*, 31(4), 2185–2193. <https://doi.org/10.1080/10494820.2021.1875004>
- Banappagoudar, S., Ajetha, D. S., Parveen, A., Gomathi, S., Subashini, S. P., & Malhotra, P. (2022). Self-esteem of undergraduate nursing students: A cross-sectional study. *International Journal of Special Education*, 37, 4500–4510.
- Benson, G., Ploeg, J., & Brown, B. (2010). A cross-sectional study of emotional intelligence in baccalaureate nursing students. *Nurse Education Today*, 30(1), 49–53. <https://doi.org/10.1016/j.nedt.2009.06.006>
- Boyatzis, R. E. (2018). The behavioral level of emotional intelligence and its measurement. *Frontiers in Psychology*, 9, 1438. <https://doi.org/10.3389/fpsyg.2018.01438>
- Budler, L. C., Gosak, L., Vrbnjak, D., Pajnkihar, M., & Štiglic, G. (2022). Emotional intelligence among nursing students: Findings from a Longitudinal Study. *In Healthcare*, 10(10), 2032. MDPI. <https://doi.org/10.3390/healthcare10102032>
- Bukhari, S. R., Fatima, S. I., & Rashid, A. (2017). Emotional intelligence and self-esteem in male and female school students. *International Journal of Indian Psychology*, 4, 40–44. DIP:18.01.153/20170402.
- Castelino, P. S., & Mendonca, T. L. (2023). The relationship between emotional intelligence, self-esteem, and empathy among nursing students—A pilot study (part 1). *Journal of Health and Allied Sciences NU*. <https://doi.org/10.1055/s-0043-1769584>
- Ciarrochi, J., Chan, A. Y., & Bajgar, J. (2001). Measuring emotional intelligence in adolescents. *Personality and Individual Differences*, 31(7), 1105–1119. [https://doi.org/10.1016/S0191-8869\(00\)00207-5](https://doi.org/10.1016/S0191-8869(00)00207-5)
- Cleary, M., Visentin, D., West, S., Lopez, V., & Kornhaber, R. (2018). Promoting emotional intelligence and resilience in undergraduate nursing students: An integrative review. *Nurse Education Today*, 68, 112–120. <https://doi.org/10.1016/j.nedt.2018.05.018>
- Costa, A., & Faria, L. (2015). The impact of emotional intelligence on academic achievement: A longitudinal study in Portuguese secondary school. *Learning and Individual Differences*, 37, 38–47. <https://doi.org/10.1016/j.lindif.2014.11.011>
- Dou, S., Han, C., Li, C., Liu, X., & Gan, W. (2022). Influence of emotional intelligence on the clinical ability of nursing interns: A structural equation model. *BMC Nursing*, 21(1), 1–9. <https://doi.org/10.1186/s12912-022-00933-y>
- Foster, K., Fethney, J., McKenzie, H., Fisher, M., Harkness, E., & Kozlowski, D. (2017). Emotional intelligence increases over time: A longitudinal study of Australian pre-registration nursing students. *Nurse Education Today*, 55, 65–70. <https://doi.org/10.1016/j.nedt.2017.05.008>
- Goleman, D. (1996). *Emotional intelligence, why it can matter more than IQ; & Working with emotional intelligence*. Bloomsbury.
- Guindon, M. H. (2009). *Self-esteem across the lifespan: Issues and interventions*. Taylor & Francis.
- Harazneh, L., Ayed, A., Fashafsheh, I., & Ali, G. A. (2015). Knowledge of palliative care among bachelors nursing students. *Journal of Health, Medicine and Nursing*, 18, 25–32.
- Hendricks, D. (2018). *The Relationship between Culture and Gender on the Emotional Intelligence of Mental Health Professionals*. Wilmington University (Delaware).
- Jenaabadi, H. (2014). Studying the relation between emotional intelligence and self-esteem with academic achievement. *Procedia Social and Behavioral Sciences*, 114, 203–206. <https://doi.org/10.1016/j.sbspro.2013.12.685>
- Jonker, C. S., & Vosloo, C. (2008). The psychometric properties of the Schutte Emotional Intelligence Scale: empirical research. *SA Journal of Industrial Psychology*, 34(2), 21–30.
- Kermanshahi, E. M., & Sala-Roca, J. (2018). The emotional intelligence of young individuals based on situational test of socio-emotional competences (CSE). *Academic Research International*, 9.
- Khaledian, M. (2013). The relationship between emotional intelligence (EQ) with self-esteem and test anxiety and also their academic achievements. *Psychology and Social Behavior Research*, 1, 1–8. <https://doi.org/10.12966/psbr.04.01.2013>
- Kuday, A. D., & Erdoğan, Ö. (2023). Relationship between emotional intelligence and disaster response self-efficacy: A comparative study in nurses. *International Emergency Nursing*, 70, 101319. <https://doi.org/10.1016/j.ienj.2023.101319>

- Maloney-Codrington, D. (2020). The Experiences of Baccalaureate Nursing Students with Emotional Intelligence: A Basic Qualitative Study (Doctoral dissertation, Capella University).
- Min, J., Kim, H., & Yoo, J. (2021). Effects of self-esteem, problem-solving ability, and professional nursing values on the career identity of nursing college students in South Korea: A cross-sectional study. *International Journal of Environmental Research and Public Health*, *18*, 8531. <https://doi.org/10.3390/ijerph18168531>
- Mohamed, S. A. E. F. (2019). Relationship between emotional intelligence and self-esteem among nursing students. *Egyptian Nursing Journal*, *16*(2), 53–58. [https://doi.org/10.4103/ENJ.ENJ\\_2\\_19](https://doi.org/10.4103/ENJ.ENJ_2_19)
- Mruk, C. J. (2013). *Self-esteem and positive psychology. Research, theory and practice* (4th ed.). Springer Publishing Company.
- Nader-Grosbois, N., & Fiasse, C. (2016). *De la perception à l'estime de soi. Concept, évaluation et intervention*. De Boeck Supérieur.
- Nair, M., & Lee, P. (2016). Emotional intelligence in nursing. *IOSR Journal of Nursing and Health Science*, *5*(6), 38–42.
- Nightingale, S., Spiby, H., Sheen, K., & Slade, P. (2018). The impact of emotional intelligence in health care professionals on caring behaviour towards patients in clinical and long-term care settings: Findings from an integrative review. *International Journal of Nursing Studies*, *80*, 106–117. <https://doi.org/10.1016/j.ijnurstu.2018.01.006>
- Nnabuiife, E. J., Chukwuemeka, O. M., Chinwendu, U. P., & Ikechukwu, E. (2018). The relationship between self-esteem and emotional intelligence among undergraduate medical students of Imo State University, Owerri, Nigeria. *International Journal of Brain and Cognitive Sciences*, *7*(1), 1–8. <https://doi.org/10.5923/j.ijbcs.20180701.01>
- Pence, P. (2010). Emotional intelligence, motivation, and retention among undergraduate students attending associate-degree nursing programs in Illinois [doctoral dissertation]. Phoenix, AZ: School of Advanced Studies, University of Phoenix. Available at: <http://proquest.umi.com> [Accessed 16 February 2012].
- Petrides, K. V., & Furnham, A. (2006). The role of trait emotional intelligence in a gender-specific model of organizational variables 1. *Journal of Applied Social Psychology*, *36*(2), 552–569. <https://doi.org/10.1111/j.0021-9029.2006.00019.x>
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.
- Santos, S. V. M. D., Macedo, F. R. M., Silva, L. A. D., Resck, Z. M. R., Nogueira, D. A., & Terra, F. D. S. (2017). Work accidents and self-esteem of nursing professional in hospital settings. *Revista latino-americana de enfermagem*, *25*, <https://doi.org/10.1590/1518-8345.1632.2872>
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, *25*(2), 167–177. [https://doi.org/10.1016/S0191-8869\(98\)00001-4](https://doi.org/10.1016/S0191-8869(98)00001-4)
- Serrat, O. (2017). *Knowledge solutions: Tools, methods, and approaches to drive organizational performance*, p. 1140. Springer Nature. DOI 10.1007/978-981-10-0983-9
- Shamsaei, F., Yousefi, F., & Sadeghi, A. (2017). Relationship between emotional intelligence and self-esteem in bachelor students of nursing and midwifery schools in Hamadan. *Avicenna Journal of Neuro Psych Physiology*, *4*(1), 19–24. <https://doi.org/10.5812/ajnpp.44485>
- Sharon, D., & Grinberg, K. (2018). Does the level of emotional intelligence affect the degree of success in nursing studies? *Nurse Education Today*, *64*, 21–26. <https://doi.org/10.1016/j.nedt.2018.01.030>
- Shrestha, K., Limbu, G., Twati, S., & Shrestha, P. (2018). Study of self-esteem of nursing students in a nursing college in Kathmandu. *Global Journal of Medicine and Public Health*, *7*, 1–8.
- Štiglic, G., Cilar, L., Novak, Ž, Vrbnjak, D., Stenhouse, R., Snowden, A., & Pajnikihar, M. (2018). Emotional intelligence among nursing students: Findings from a cross-sectional study. *Nurse Education Today*, *66*, 33–38. <https://doi.org/10.1016/j.nedt.2018.03.028>
- Tajpreet, K., & Maheshwari, S. K. (2015). Relationship of emotional intelligence with self-esteem among adolescents. *Indian Journal of Psychiatric Nursing*, *10*(1), 18–23. <https://doi.org/10.4103/2231-1505.240278>
- Toqan, D., Ayed, A., Joudallah, H., Amoudi, M., Malak, M. Z., Thultheen, I., & Batran, A. (2022). Effect of progressive muscle relaxation exercise on anxiety reduction among nursing students during their initial clinical training: A quasi-experimental study. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, *59*, 00469580221097425. <https://doi.org/10.1177/00469580221097425>
- Tweedlie, J., & Vincent, S. (2019). Adult student nurses' experiences of encountering perceived child abuse or neglect during their community placement: Implications for nurse education. *Nurse Education Today*, *73*, 60–64. <https://doi.org/10.1016/j.nedt.2018.11.002>
- Valizadeh, L., Zamanzadeh, V., Gargari, R. B., Ghahramanian, A., & Jabbarzadeh, F. (2016). Self-esteem challenges of nursing students: An integrative review. *Research and Development in Medical Education*, *5*(1), 5–11. <https://doi.org/10.15171/rdme.2016.003>