The Impact of QSEN-Based Education on Nurse Competency and Patient Outcomes:

A Literature Review

Samjhana Rai

N434: Evidence-Based Practice

Professor Whishman

July 10th ,2025

The Impact of QSEN-Based Education on Nurse Competency and Patient Outcomes: A Literature Review

A literature review in healthcare studies is a systematic assessment and synthesis of scientific works that address a specific research question or area of interest. The primary goal of a literature review is to gather previously published research on a specific topic and then provide an in-depth analysis of the literature to establish what is known about the topic and to identify any gaps in current knowledge that would benefit from further research (Houser, 2023). Literature reviews help to add confidence to the importance of specific healthcare topics and determine procedures that can be replicated and adapted to real-life practice (Houser, 2023). A literature review is also an integral part of nursing, as it enhances patient outcomes and promotes evidence-based practice by supporting critical decision-making, policy development, and ensuring that clinical interventions are justified by high-quality research (Houser, 2023). This literature review aims to identify quantitative evidence that reflects the impact of QSEN (Quality and Safety Education for Nurses)-based education on enhancing nursing skills, including patient safety, evidence-based practice, and professional attitudes. As the importance of safety and quality in nursing practice continues to grow, focusing on the outcome of structured interventions, such as education, becomes increasingly crucial. This is a suitable topic for quantitative research, as it allows for the objective numerical analysis of interventions, outcomes, and effectiveness. As pointed out in Chapter 13 of the Houser framework, the inferential statistical methods will provide confidence that can be considered before establishing whether an intervention (in this case, QSEN training) indeed brought about improvements or if the outcomes occurred accidentally. The following sections present literature reviews of three quantitative

research studies that examine the impact of QSEN-based education on the knowledge, skills, and attitudes of junior nurses.

“The Impact of the Quality and Safety Education (QSEN) Program on The Knowledge, Skills, And Attitudes of Junior Nurses"

The study by AlRatrout et al. (2025) aimed to determine whether a structured QSEN education intervention could be used to facilitate meaningful increases in the competencies of junior nurses across six domains: patient-centered care, teamwork, evidence-based practice, quality improvement, safety, and informatics. The study, which was carried out in Palestine, targeted junior nurses working at the Ministry of Health comparing an intervention group with a control one in the two governmental hospitals: PMC hospital in Ramallah and Rafidia Hospital in Nablus. The intervention group had a 4 hours intensive training session based on a diversified method of teaching during which the simulation, group discussions, and role playing were used. The researchers also wanted to quantify knowledge, skills, and attitude gains during the intervention and after it to deliver solid figures on the efficiency of QSEN-based competency teaching. The article is of great significance to nursing since it raises a universal demand for systematic training towards improved readiness of nurses in the provision of safe, effective, and evidence-informed care in dynamic clinical settings.

Key Points

The researchers adopted a quasi-experimental pre-test/post-test design to conduct the study and examine the effects of QSEN-based educational intervention on the knowledge, skills, and attitudes (KSAs) of junior nurses in two hospitals supported by the Palestinian Ministry of Health. A structured QSEN training program was administered to the 100 participants in the

intervention group at PMC Hospital in Ramallah, whereas 64 people in the control group at Rafidia Hospital in Nablus did not take part in the structured QSEN training process (AlRatrout et al.,2025). Fowler and Lapp (2019) explain that a sample of such magnitude can be used when it is necessary to generalize the findings of the research study within the nursing sphere, in particular when the participants are selected based on a relatively homogenous sample population. G*Power validated that the postulated sample was adequate, with effect size measured as moderate and alpha assumed = 0.05, yielding a power of 0.8. The group assignment was done by random sampling in order to make it unbiased. The study also included less experienced nurses with a total of less than five years of work experience (e.g., medical, ICU, surgical, pediatric), which increased the internal validity and mirrored the clinical diversity.

The educational intervention lasted four hours and employed several active learning strategies, including lectures, case-based learning, simulation, role-playing, flipped classrooms, and problem-based learning. The researchers employed two validated tools: the Clinical Performance Evaluation Questionnaire (CPEQ) and the Knowledge, Skills, and Attitudes Inventory for Patient-Centered Care Scale (KSAI-PCCS). Both instruments were culturally modified, demonstrated internal consistency (Cronbach's alpha> 0.70), and were found to have satisfactory content validity (CVI = 0.88) through expert panel review.

The data were analyzed using SPSS version 28. The descriptive statistics provided summary measures, and the inferential tests revealed group differences. The test of normality (Shapiro-Wilk and Kolmogorov-Smirnov) was employed, and nonparametric tests were chosen due to the non-normal distribution of the data. In particular, the Mann-Whitney U and Wilcoxon signed-rank tests were used to assess both between-group and within-group differences before and after the intervention. The statistical significance of results was proven ($p < 0,0001$) in the

so-called intervention group that showed a statistically significant increase in all measured domains: knowledge (M = 50,37 to M = 77,02), skills (M = 43,77 to M = 70,16), and attitudes (M = 45,89 to M = 75,47) (AlRatrout et al.,2025). The control group, on the other hand, did not register any significant changes between the pre- and post-assessments, which also proves the effectiveness of the intervention.

The improvements are also clinically significant in addition to being statistically significant. Such benefits indicate that organized QSEN education could significantly increase the quality and safety skills of junior nurses, making them feel more confident and competent to participate in clinical practice more effectively in the real world. This is made possible by the robust design of the study, thorough training, and validated tools, which apply to the validity and the relevance of the years at other healthcare systems that have low resources or are transition to such a healthcare system.

Assumptions

Some of the apparent assumptions made by the authors are both theoretical and practical. AlRatrout et al. (2025) assumed that a systematic, simulation-based educational intervention would have a profound positive impact on nurse competencies and that the existing gaps in the practices of junior nurses would be addressed through the framework of intensive training. Other assumptions made were that the knowledge, skills, and attitudes to be measured have been adequately represented through the tools to be used and indeed represent outputs in the real world of work (AlRatrout et al., 2025). The researchers also assumed that any differences that might arise between the intervention and control groups would have been caused by the QSEN training, rather than by external factors such as mentoring, leadership, or the hospital's culture.

Additionally, they hypothesized that these skills would be retained and utilized in the clinical setting by junior nurses; however, it did not indicate whether they would be maintained in the long term (AlRatrout et al, 2025). Finally, it was also hypothesized that their results would be generalizable to other areas beyond the local Palestinian setting, where other low-resource healthcare systems may be interested in developing cost-effective competency development strategies.

Deficit/Conclusion

Solid data and convincing analysis support the results presented by the authors, and I agree with their argumentation. The intervention was well established, and outcome measurements were conducted using valid measurement tools. Improvements were reported to be statistically significant (AlRatrout et al., 2025). There are several practical implications of the study for the nursing profession: properly organized QSEN-based education in practice institutions, especially among novice nurses, can lead to improved safety rates, enhanced interpersonal communication, and higher quality of care (AlRatrout et al., 2025). Without understanding the benefits of such structured education programs, the pitfalls include the persistence of the competency gap, an increase in errors that could be avoided, and a compromise in patients' faith in the nursing profession.

However, a possible weakness of the research was the lack of a long-term follow-up to determine whether this improvement was sustained over time. The authors have also failed to cover possible confounding factors such as clinical experience, supervisory support, or patient acuity. Neither did the authors investigate the potential confounding variables: clinical expertise, supervisory support, or acuity of patients. The inclusion of all these factors could have assisted in explaining what had the most significant impact on the training. Notwithstanding these

deficiencies, the article presents strong arguments to support the fact that QSEN-based education must be included in the institutional quality improvement initiatives, particularly in the development of health systems.

References

AlRatrout, S., Abu Khader, I., ALBashtawy, M., Asia, M., Alkhawaldeh, A., & Bani Hani, S. (2025). The Impact of The Quality and Safety Education (QSEN) Program on The Knowledge, Skills, And Attitudes of Junior Nurses. *PLOS ONE*, *20*(1), e0317448. https://doi.org/10.1371/journal.pone.0317448

Fowler, S. B., & Lapp, V. (2019, May). *Sample size in quantitative research.* American Nurse Today. https://www.myamericannurse.com/sample-size-quantitative-research/

Houser, J., & Oja, K. (2025). Nursing Research: Reading, Using, and Creating Evidence with Navigate Advantage Access. Jones & Bartlett Learning..https://books.google.com/books?hl=en&lr=&id=g7AxEQAAQBAJ&oi=fnd&pg=PP1&dq=Houser,+J.+(2023).+Nursing+research:+Reading,+using,+and+creating+evidence+(5th+ed.).+Jones+%26+Bartlett+&ots=bItekR9hnq&sig=pyS9BZyeySBG3KHStrGxUqoY-qc