

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

***A Literature Review***

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N434: Evidence-Based Practice

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July 19, 2025

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

A literature review in health science is a method of systematic evaluation and integration of the scientific works answering a certain research question or sphere of concern (Houser, 2023). The overall aim of a review of literature is to collect the prior published research on a particular research topic and thereafter give a keen observation of the literature to determine what has already been established regarding the topic, as well as revealing any gaps in the available knowledge which ought to be bridged with further research (Houser, 2023). The literature reviews give confidence to the significance of certain healthcare areas and identify the procedures that may be repeated and adjusted to real-life practice (Houser, 2023). Nursing cannot exist without a literature review as well, since it can improve patient outcomes and enhance the principle of evidence-based practice through assistance in critical decision-making, the formulation of policies, and providing a research basis for clinical interventions that are rooted in high-quality research (Houser, 2023). This literature review aims to establish descriptive evidence demonstrating the outcomes of QSEN (Quality and Safety Education for Nurses)-based education on the development of nursing skills in terms of patient safety, evidence-based practice, and professional attitudes. With the increased significance of safety and quality in the nursing practice, it is especially important to consider the outcome of the structured interventions, including education. It is an appropriate subject of quantitative research, which allows carrying out objective, numerical analysis of interventions, outcomes, and effectiveness. The articles considered in this review investigate the impact of QSEN training, Competency-Based Education to Evaluate the Research Skills of Nursing Students, and the creation of tools to assess quality improvement (QI) self-efficacy.

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

AlRatrout et al. (2025) carried out a quasi-experimental research study in Palestine to investigate the effectiveness of a structured QSEN-based educational program in terms of outcomes in improving the knowledge, skills, and attitudes (KSA) of junior nurses in relation to patient-centered care and patient safety. The main aim of the research was to identify the possibility of a short training program to increase the competencies of nurses to provide high-quality and safe care. A total of 164 nurses participated in the study, which randomly assigned them to either an intervention or control group. 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, particularly when the participants are selected from a relatively homogeneous sample population. An educational module on QSEN was administered as an intervention to the intervention group, whereas the control group continued with their existing practices. This was achieved by collecting pre- and post-intervention data to confirm changes in the three dimensions of KSA.

### **Key Points**

AlRatrout et al. (2025) employed a quasi-experimental pre- and post-test design, which was conducted across three hospitals. Experimentally proven tools, the Competency of Patient-Centered Care Questionnaire (CPEQ) and the Knowledge, Skills, and Attitude Inventory (KSAI), were used. The reliability measure of internal consistency was good (Cronbach's alpha 0.70) or

higher. A statistical comparison was made using the Mann-Whitney U test and Wilcoxon signed-rank test, after verifying normality with the Shapiro-Wilk test. There was a significant increase in the scores of the intervention group in the three domains ( $p < 0.001$ ) (AlRatrou et al., 2025). The results of this study have statistically and clinically significant implications, as positive changes in competencies directly impact patient safety, communication, and the quality of care.

### **Assumptions**

AlRatrou et al. (2025) assumed that QSEN competencies are generic and can be applied across clinical settings and cultures. They also assumed that the tools chosen measured changes in KSA. The other, unmentioned, idea was that short-term educational interventions would be adequate to make a substantial change in nursing competencies. At the same time, the improvement in the QSEN scores was assumed to lead to corresponding improvements in patient outcomes and nursing performance, although the latter was not directly quantified.

### **Deficit/Conclusion**

The arguments presented by AlRatrou et al. (2025) are persuasive, and the statistics they provide are robust; I accept the authors' reasoning. If these findings are adopted, nursing practice would benefit from the use of standardized competency training early in a nurse's career. The study, however, did not include a longitudinal follow-up to establish the benefits of the improvements in KSA over time. Furthermore, cultural and systemic differences that extend beyond the Palestinian healthcare system result in limited generalizability. Future research should include follow-up reviews and analyses of outcomes at the patient level.

## **“Utilizing Competency-Based Education to Evaluate the Research Skills of Nursing Students: A Systematic Review and Meta-Analysis”**

In this study, Alkhaledi et al. (2024) conducted a systematic review and post-structural analysis to understand the effectiveness of competency-based education (CBE) in developing research skills among nursing students. The review included five quantitative studies conducted between 2017 and 2023 across Turkey, Saudi Arabia, Peru, and China, encompassing a sample size of 2,191 nursing students. The major research question was whether CBE may provide an important contribution to the improvement of research literacy and research skills in nursing students (Alkhaledi et al., 2024). The authors were directed by the PRISMA in order to offer quality control and applied the Joanna Briggs Institute (JBI) appraisal tool.

### **Key Points**

The random-effect model was applied in this analysis to reflect high level of heterogeneity (I<sup>2</sup> 50% and beyond). All this implies that the average effect size of 0.69 ( $p = 0.05$ ) indicates a moderate to strong influence of CBE on research skills. The data collection was done using the Research Competency Scale in Nursing (RCS-N) and other validated self-reporting measures. The statistical findings indicated that the older children and those who had high grade in their academics were very much qualified on doing research work and their odds ratios varied between 2.38 and 2.8. Other motivational factors, such as interest in research and perceived self-efficacy also positively correlated with the scores at a high level ( $Rho = 0.944$ ,  $p = 0.005$ ), which once again emphasizes the role of individual features in educational practice.

### **Assumptions**

Alkhaledi et al. (2024) assume that there is no difference between self-reported competency and actual research competency in real-life settings. It also presumes a few things, namely that the positive impacts of CBE are universal across different cultural and institutional settings. Moreover, the authors may conclude that age and academic performance are universal predictors of competency, despite considering contextual factors such as quality of mentorship, institutional support, or socioeconomic background.

### **Deficit/Conclusion**

Although the study demonstrates a good methodological process, including PRISMA and JBI compliance, the conclusions are limited to the use of a few selected studies and cross-sectional research methods. The use of self-reported data also raises concerns about social desirability bias in the research. Although the data tend to support the inclusion of CBE in nursing programs, the authors tend to exaggerate its ability to replace ordinary teaching completely. A combined method of implementation, involving both mentorship and a hands-on approach, would be more effective. Failing to take action based on these findings can contribute to the perpetuation of the research-practice gap and hinder the widespread adoption of evidence-based practices in clinical practice.

### **“Development and Testing of the Quality Improvement Self-Efficacy Inventory”**

The purpose of the study by Baernholdt et al. (2022) was to design and validate the Quality Improvement Self-Efficacy Inventory (QISEI), which aims to quantify nurses' confidence in conducting QI-related activities. The research aimed to justify QISEI as an instrument for detecting QI competency gaps among staff nurses. The cross-sectional study was

conducted in Alabama and comprised 886 acute care nurses recruited through a convenience sample. A clinical learning environment framework was used to develop the inventory, which was administered with the Practice Environment Scale of the Nursing Work Index.

### **Key Points**

The data collection was conducted using online surveys, and the analysis was performed using descriptive statistics and correlation analysis. The findings revealed that nurses self-reported better on the basic QI behaviors (e.g., recognizing inefficiencies in the system) rather than on the advanced skills (e.g., utilizing national QI tools) (Baernholdt et al., 2022). Significant correlations were found between QISEI scores and years of experience, marital status, and views on workplace support. Internal consistency and construct validity were effectively demonstrated in the study; however, the low response rate (4.47%) restricts the applicability of the results.

### **Assumptions**

Baernholdt et al. (2022) assumed that confidence in performing QI tasks equates to actual competence. They also assumed that extrinsic conditions, such as experiences and working environment, are adequate in explaining changes in self-efficacy. Internal variables, including resilience and critical thinking skills, as well as the quality of education, which are also presumed to influence QI capabilities, were not considered in the study.

### **Deficit/Conclusion**

Despite the promising nature of QISEI, low responsiveness and self-assessment are the constraints of using the tool in practice. Baernholdt et al. (2022) did not investigate the factor

that caused the decrease in self-efficacy among younger nurses, despite studying within the frameworks of QSEN. This brings some doubts over the success of QSEN incorporation in practice environments. However, QISEI may help identify competency deficiencies and facilitate the continuing education program. Neglect of these tools might lead to an unanticipated shortage in QI potentials, negatively influencing patient safety and the quality of care.

### **Conclusion**

The above quantitative studies confirm that structured, competency-based frameworks play a crucial role in nursing practice and education when seen together. The study by AlRatrouf et al. (2025) proved that education on QSEN measurably advances the skill level of junior nurses. Alkhaledi et al. (2024) stated that CBE is an effective method for teaching research literacy to students, and Baernholdt et al. (2022) introduced an assessment tool for QI self-efficacy in practice. The general findings of the studies underscore the importance of proven tools, the impact of individual and external factors, and the potential for such frameworks to bridge the gap between theory and practice.

These results support the idea of incorporating QSEN and CBE into both academic and clinical practice to enhance nursing skills. By doing so, one can enhance the quality of patient care, improve clinical decision-making, and foster a culture of continuous quality improvement. Tools such as QISEI and educational approaches like QSEN serve as connectors in the processes of knowledge and practice within evidence-based practice. In the end, investing in competency frameworks will provide nurses with the necessary tools to deliver quality and safe care, accessible and efficient care, which is a significant contribution that benefits the broader healthcare system.

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