Evaluating Self-Efficacy and Clinical Competence within a Nurse Practitioner Fellowship

Melissa A. Nee, DNP, APRN, AGPCNP-BC, Mary Samost, DNP, RN, CENP, and Kathryn E. Hall, DNP, MS, ANP-BC, NE-BC
MGB Medical Group – Salem Hospital Primary Care

Introduction

New nurse practitioners are expected to demonstrate clinical competence immediately upon entering advanced practice, despite the growing complexities in primary care, such as challenging patient populations, high productivity expectations, limited support, and technological demands. These pressures can lead to anxiety, stress, and insecurity, extending their adjustment period and increasing risks of self-doubt, job dissatisfaction, and turnover (Thompson, 2019). Nurse practitioner fellowship programs offer an effective solution, improving job satisfaction and retention (Kesten & Beebe, 2022). Internal 2024 human resources data from MGB demonstrated an **8.3% turnover of advanced practice nurses within the first year of employment**, which speaks to the importance of retaining and supporting these providers (MGB, 2024).

Purpose

The purpose of this pilot evaluation is to assess the importance of evaluating both clinical competence and self-efficacy within a nurse practitioner fellowship program, given the known causes of job turnover amongst novice practitioners. Assessing new nurse practitioners' self-efficacy and clinical competence, especially after didactic sessions, can provide valuable insight into confidence levels and inform retention strategies.

Methods

A pre/post-test design was used to assess self-efficacy and clinical competence among five new primary care fellows, including three nurse practitioners and two physician assistants. The **Nurse Practitioner Self-Efficacy Scale (NPSES)** (Azama, 2023) and **validated academic questions** were administered through REDCap surveys before and after two didactic sessions to measure outcomes. Changes in self-efficacy were analyzed by comparing pre- and post-NPSES scores with a paired t-test, which is suitable for the sample size. Changes in clinical competence scores were also analyzed with a paired t-test, given **normal distribution**.

Self-Efficacy:

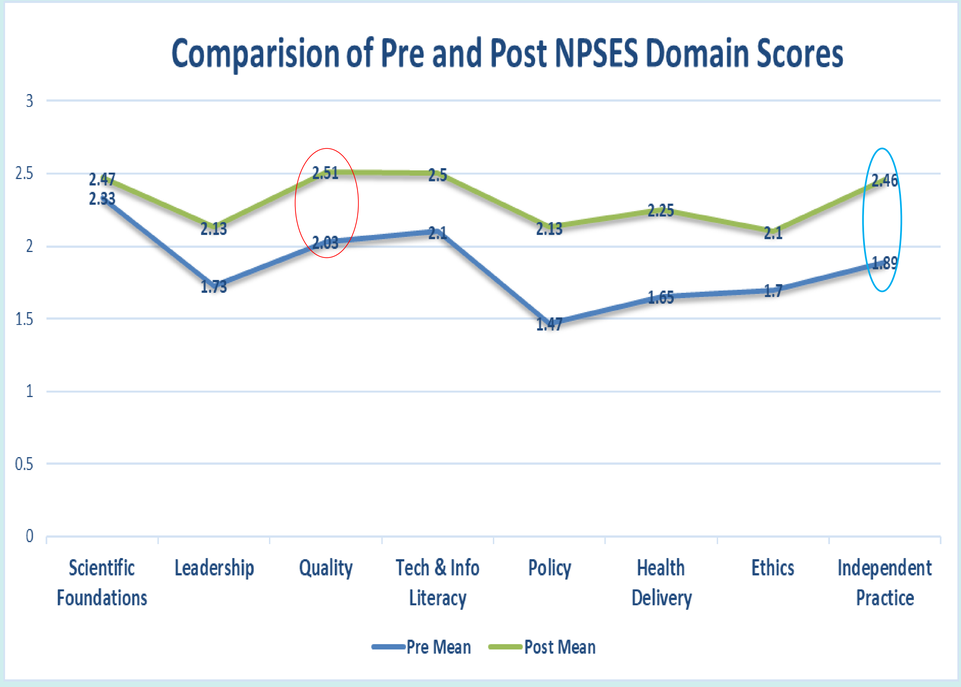
- NPSES administered electronically via REDCap as part of the pre- and post-intervention
- Each of the 31 NPSES items was scored on a scale of 0 to 4. Domain-specific scores were calculated by averaging the relevant item responses. Pre- and post-intervention scores were compared to evaluate changes in self-efficacy

Clinical Competence:

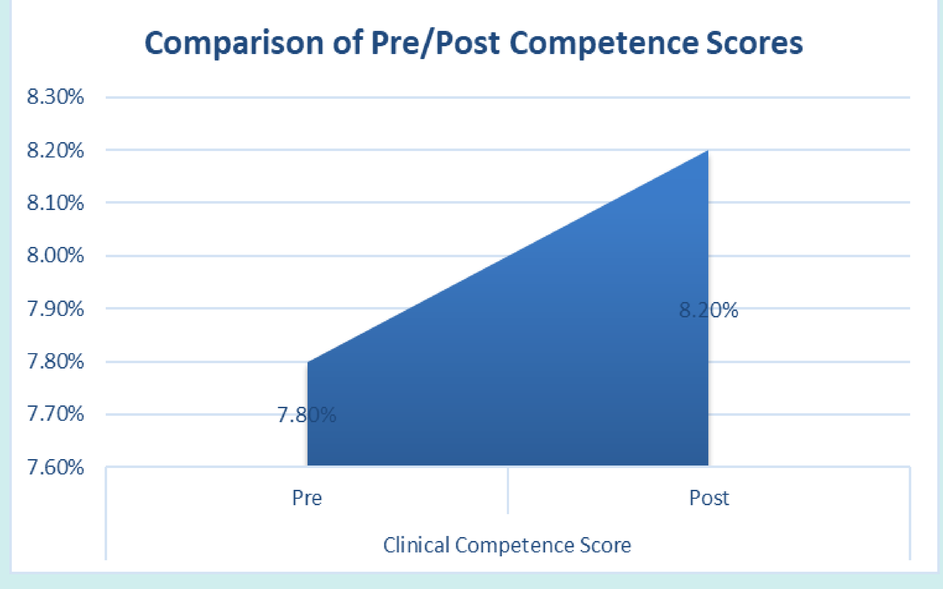
- Validated academic questions used in nurse practitioner education were employed to assess clinical competence related to the didactic session topics – these were administered both pre- and post-intervention via REDCap.
- Pre- and post-assessment responses were compared to evaluate changes in clinical knowledge and competence.

Results

Self-Efficacy



Competence Scores



Findings

There was 100% completion rate of both pre and post surveys. There was an improvement in the average scores of each domain within the NPSES. The improvement in scores in Quality was statistically significant with a ***p* value of 0.034**. The improvement in scores in Independent Practice is nearing statistical significance with a ***p* value of 0.054**. There was an overall improvement in competence scores, but this improvement was not statistically significant with a ***p* value of 0.178**.

Limitations

- A pilot quality improvement project supporting a large primary care medical group
- Small sample size, n=5
- Fellows included both nurse practitioners and physician assistants
- Self- reported
- Short interval between pre/post evaluations
- Didactic education, no simulation

Conclusion

This pilot project highlights the importance of evaluating and analyzing novice provider's perceived self-efficacy and objective clinical competence. It is interesting to note that despite the lack of overwhelming statistical significance in the data results, there was improvement in all assessment areas, which is reassuring.

Implications for Practice:

- NPSES is supported in NP fellowship use, targeting novice NPs and their self-efficacy across 8 domains applicable to NP practice
- It is crucial to formally assess novice NP clinical competence throughout a fellowship program to ensure readiness for transition to fully independent clinical practice
- Continued evaluation of NP fellowship programs, notably in self-efficacy and clinical competence, is highly encouraged and supported, as evidenced by this pilot study
- Potential expansion of this approach to all advanced practice providers, beyond ambulatory primary care

References