Clinical Mentorship in the Pediatric Cardiac Intensive Unit: Developing Mentor Competence

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Background and Review of Literature

- Nationally, ideal nurse workforce is challenged by increased demand and turnover, which occurs disproportionately amongst novice nurses.[1]
- Nurse experience influences healthcare safety and quality.
  - At the project implementation site, nearly 20% percent of nurses had less than 2 years of experience—similar to defined cut-points in the literature demonstrating an inversive relationship between nurse experience and in-hospital mortality amongst cardiac surgery patients.[2]
    - Retention and clinical development strategies were lacking.
- Mentorship improves retention, satisfaction and clinical competency.[3,4,5]
  - Mentor preparation and training is essential.[6,7,8,9,10,11]
- Mentor competence is influenced by mentor characteristics, practices in the workplace, motivation, goal-setting, reflection, mentored-nurse evaluation, and constructive feedback.[3,5,7,9,10,12,13,14]
- Simulation has demonstrated improvement in learner outcomes across cognitive, affective and psychomotor learning domains.[15,16]
  - Simulation fidelity level should be based on learner outcomes desired.[16]

Purpose and Aims

Purpose: Explore the impact of a mentor education course on mentor competence, course feasibility and participant satisfaction.

Primary Aim: Increase mentor competence by 10% following mentor education as measured by the Mentors' Competence Instrument (MCI).

Secondary Aims:

- Demonstrate course feasibility in the PCICU with 100% registered participant attendance and 80% MCI completion.
- Demonstrate participant satisfaction with 75% reporting satisfaction with the mentor education course.

Methods

Design: quality improvement project that utilized a single group and pre- and post-education surveys

Setting: 32-bed PCICU in a pediatric academic urban medical center

Measurements: utilized the 7 factor, 43-item MCI,[13] registered participant course attendance, MCI survey completion, and course satisfaction Likert-survey

Intervention: 4-hour education course grounded in adult learning theory that provided didactic lecture and low-fidelity simulation to practice mentor skills in a safe environment

Data Analysis: descriptive statistics

Sample: 22 PCICU nurses

Results

Sample Characteristics

- 100% female
- 91% BSN-prepared
- 46% previous mentor experience
- Age: 26-58 years
- RN experience: 4.5-34 years

Mentor Competence Outcomes

- Mentor competence (group means) increased following the education course (Figure 1).
  - Pre-education MCI mean (SD) summary score: 3.42 (0.34) Participants reported ***middle-level mentor competence***
  - Post-education mean (SD) summary score was 3.81 (0.23) ***10% increase*** in reported mentor competence with shift to ***high-level mentor competence*** reported.
- Course participant (paired means) mentor competence increased following the education course (Figure 2).
  - 100% of participants (n=11) that completed pre- and post-MCI surveys reported an increase in mentor competence.
  - Range increase in MCI following education: 0.07 to 0.95
  - Mean (SD) increase in MCI following education: 0.34 (0.28)
- Mentor competence (group means) increased in each MCI factor following the education course (Figure 3).
  - Participants reported ***high-level mentor competence*** in all MCI factors following education (Figure 3).

Figure 1

Comparison of MCI Summary Score Before to Immediately After Mentor Education

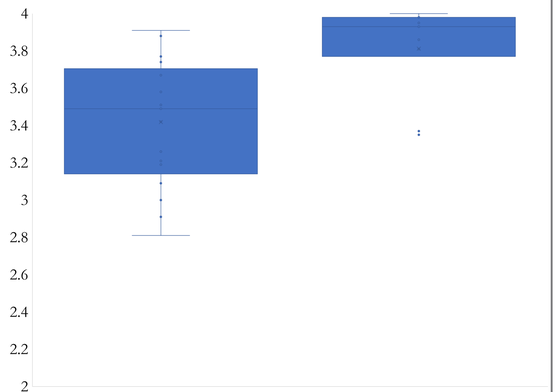


Figure 2

Comparison of Participant MCI Summary Score Before to Immediately After Mentor Education

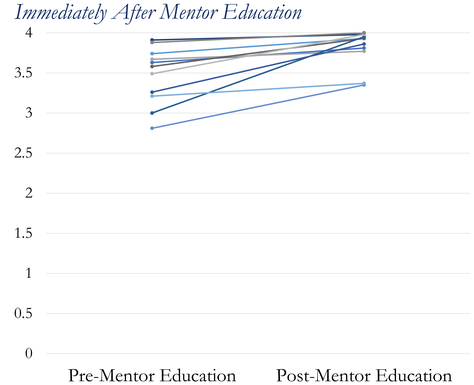
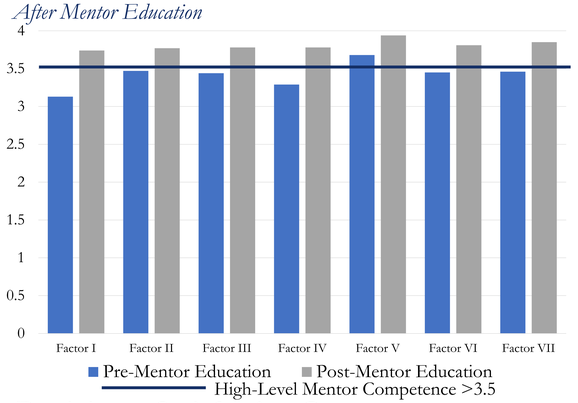


Figure 3

Comparison of MCI Factor Summary Score Before to Immediately After Mentor Education



Course Feasibility Outcomes

- Registered participant attendance: 90.9% (n=22)
- MCI survey completion: 75% (n=44)
  - Pre-education completion: 95.5% (n=22)
  - Post-education completion: 54.5% (n=22)

Participant Satisfaction Outcomes

- Course participant satisfaction: ***100%*** (n=12)
  - Course evaluations were only completed 60% of course participants.

Strengths and Limitations

- Strengths
  - Reported mentor competence increased (primary aim)
  - Reported satisfaction with the course (secondary aim)
  - Implemented during the unprecedented global pandemic
- Limitations
  - Small number of participants
  - Missing data
  - Single site implementation

Discussion

- Organizational buy-in and resources are critical to course feasibility.
- Pre-existing middle-level of mentor competence prior to the course may be explained by course participants having previous experience:
  - in the PCICU
  - in roles that support the development of novice nurses
  - as a mentor
- Reported increase in each MCI factor aligns with literature.[17]
  - MCI factors known to significantly increase with education: mentoring practices in the workplace, novice nurse-centered evaluation, reflection during mentoring, goal-oriented mentoring and constructive feedback.[17]
  - MCI factors reported to have the greatest increase in self-reported mentor competence:
    - mentoring practices in the workplace (Figure 3, Factor I)
    - goal-oriented mentoring (Figure 3, Factor IV)

Conclusion

- Continued evaluation of the mentor education course will:
  - broaden the understanding of the impact on mentor competence
  - identify opportunities for improvement and ongoing mentor development
- A mentor education course builds the foundation for a mentorship program that supports an ideal nurse workforce.

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