Facilitating Transition to Practice for Acute Care Nurse Practitioners Through a Cadaver Workshop

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Introduction

- Acute care nurse practitioners (NPs) receive rigorous education and training, however, due to specialty care, patient complexities and volume, additional training should be considered to assist transition to practice.
- NPs report feeling prepared for practice by their education but report lesser preparation in complex patients and in specialty areas. [3]
- NPs have expressed interest in receiving assistance through residencies, fellowships, and mentorship as they transition to practice. [3]
- NP utilization in critical care and specialty environments continues to grow. Evidence supports that acute care NPs are valuable providers in clinical care management, continuity of care, improve quality and safety metrics, patient and staff satisfaction, provide fiscally responsible care, and have a positive impact on fellow and resident training. [2, 6]

Background

- The quality improvement (QI) project stemmed from the search for ways to improve transition to practice time and independence in expected skills such as anatomical knowledge and chest tube management in the trauma and surgical setting for new NPs.
- New acute care NPs desire more exposure and hands-on experiences in surgical anatomical knowledge and procedural training.
- Cadaver labs and simulation may provide high fidelity opportunities to build procedural skill and competency, knowledge, and self efficacy more efficiently.

Purpose and Aims

Aim1: Knowledge	Aim 2: Perception	Aim 3: Confidence & Application
▪ **Improve competency in surgical anatomy, clinical decision making, and common procedures** performed by acute care nurse practitioners ▪ *Measure*: pre-test and post-test	▪ Assess if best workshop design was provided with the intervention as perceived by the participants ▪ *Measure*: Workshop Design Survey	▪ Improve self-reported comfort, efficacy, and course satisfaction following the intervention ▪ *Measure*: Satisfaction and Self-Confidence in Learning Survey

Methods

- **Design:** Paired pre-test/post-test and post-intervention descriptive surveys
- **Setting:** large academic hospital with a level one trauma center designation
- **Sample:** Nine acute care NPs currently working in a surgical and trauma setting for no more than two years

- **Intervention:**
  - Adapted Practical Anatomy Instruction for Nurse Practitioners and Physician's Assistants in Critical Care (PAIN) curriculum sent to participants one week prior to workshop [10]
  - PAIN curriculum further developed by critical care experts
  - 3-hour cadaver workshop
  - Cadavers previously used for American College of Surgeons Advanced Surgical Skills for Exposure in Trauma (ASSET) and prepared by an attending surgeon
  - Taught by one critical care NP and two critical care trauma surgeons

- **Data Collection:** (all data captured in RedCap)[9]
  - Knowledge pre-test sent to participants one week prior to the cadaver workshop
  - Didactic curriculum distributed once all pre-tests completed
  - Knowledge post-test and Workshop Design survey sent directly following cadaver workshop
    - Workshop design survey evaluated features including objectives/information, support, problem solving, feedback, and fidelity. [7]
  - Satisfaction and Self-Confidence in Learning scale distributed 8 weeks following intervention. [8]
    - Measured satisfaction of activity, self-confidence in experience, and requested feedback on what skills participants had used in practice

Demographics

Table 1. Demographics Characteristics of NPs

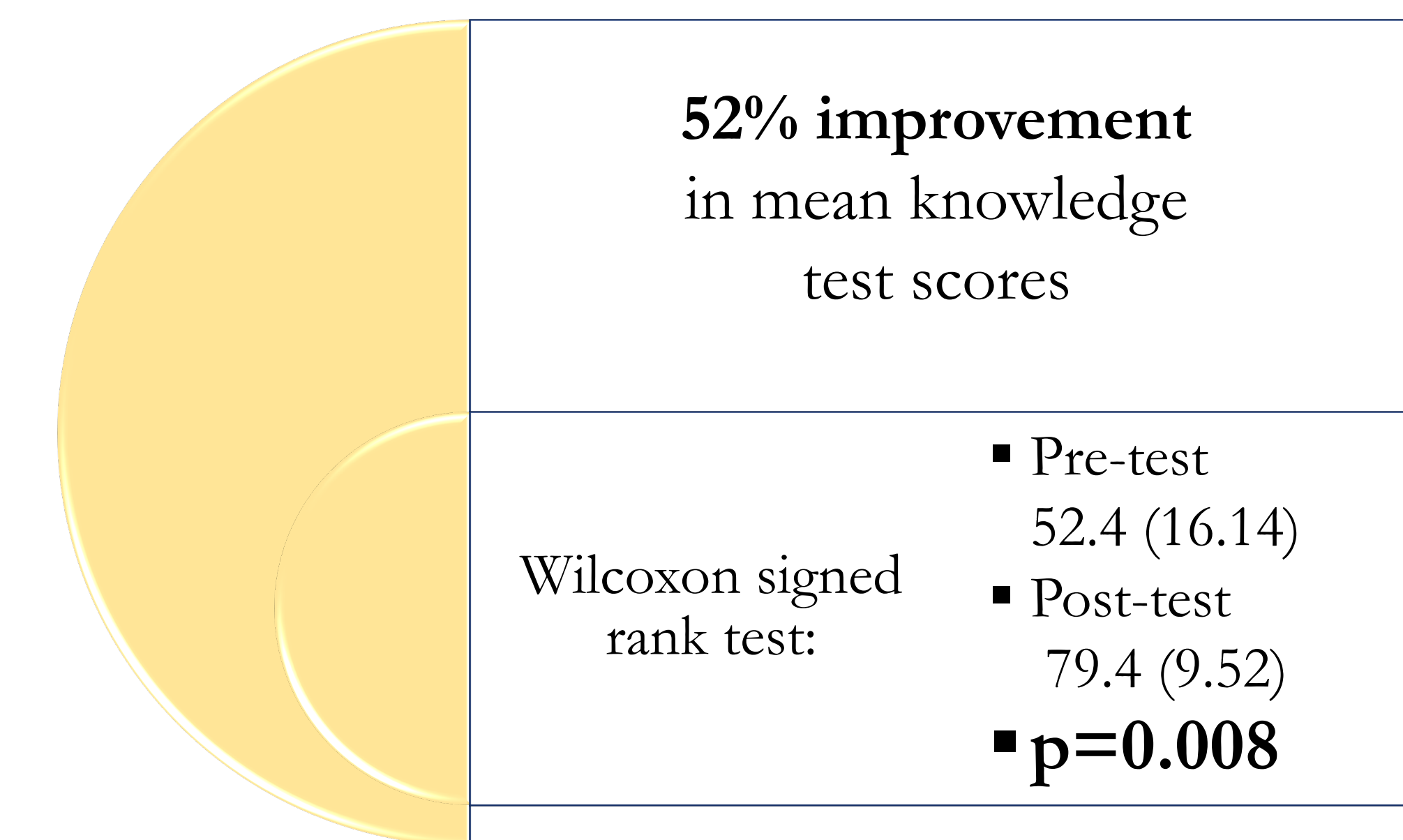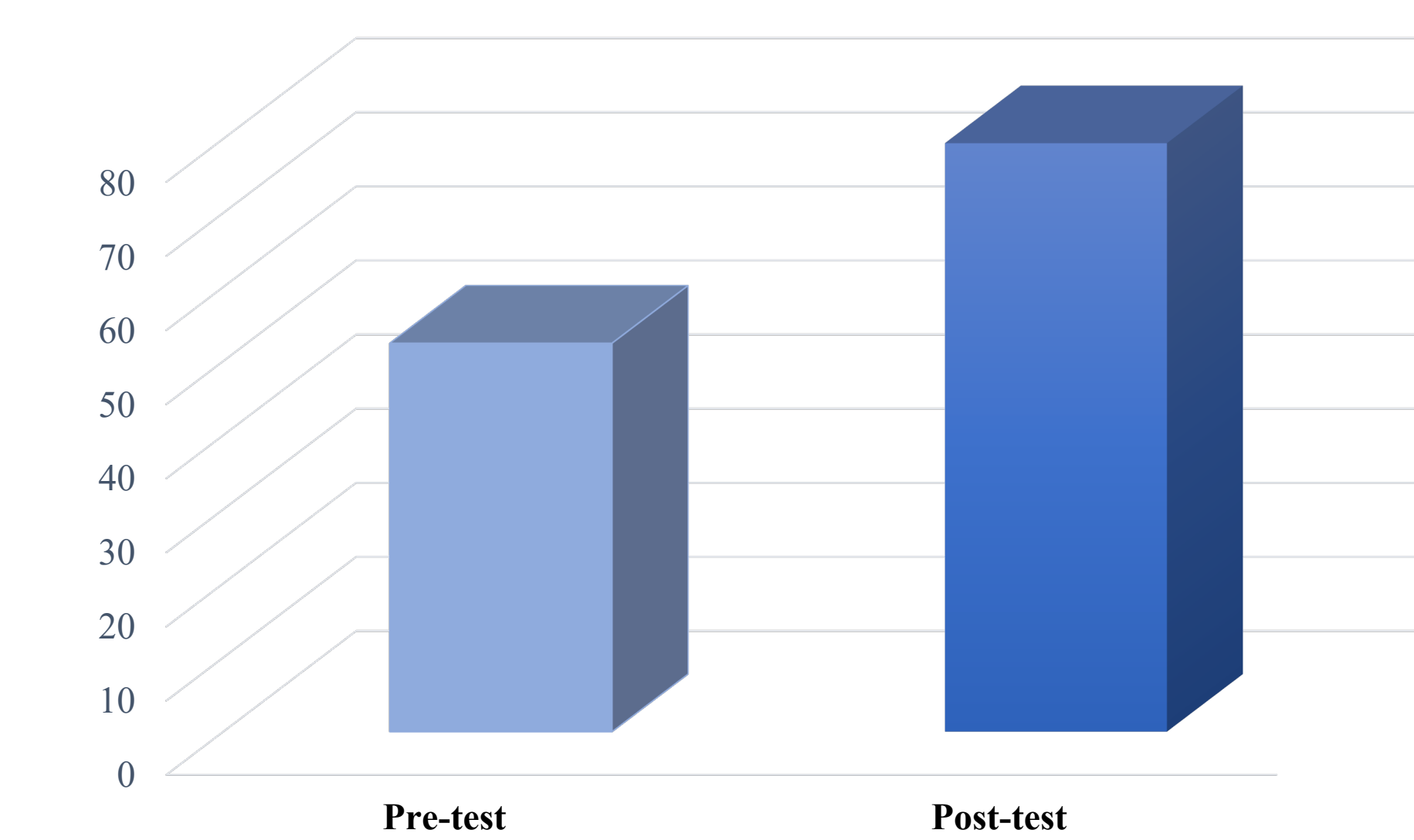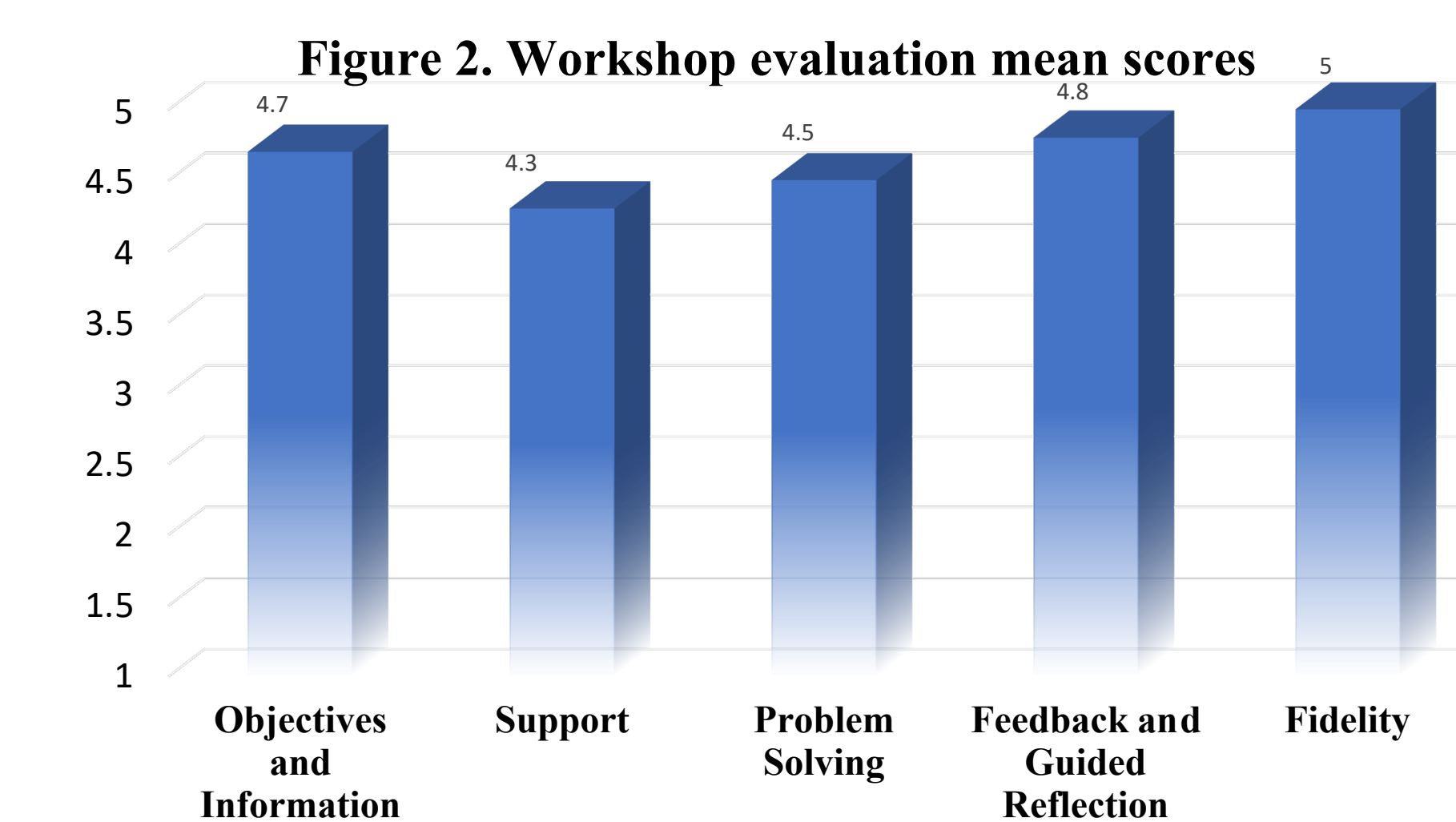| Demographic characteristics	(N = 9)
Sex, n (%)	
Male	3 (33)
Female	6 (67)
Months in practice, n (%)	
0-6 months	8 (89)
6-12 months	0 (0)
12-18 months	0 (0)
18-24 months	1 (11)
Prior nursing experience, n (%)	
Yes	7 (78)
No	2 (22)
Years of nursing experience if yes, n (%)	
0-3 years	0 (0)
>3 years	7 (78)
Nursing experience in critical care, n (%)	
Yes	7 (78)
No	0 (0)

Results

Aim 1: Knowledge
[mean, (SD)]

Figure 1. Comparison of mean pre-test and post-test scores

52% improvement in mean knowledge test scores

Wilcoxon signed rank test:
- Pre-test 52.4 (16.14)
- Post-test 79.4 (9.52)
- **p=0.008**

Aim 2: Perception
[mean, (SD)]

- Objectives and Information 4.7 (0.52)
- Support 4.9 (0.36)
- Problem solving 4.5 (0.65)
- Feedback and guided reflection 4.8 (0.39)
- Fidelity 5.0 (0.00)

Figure 2. Workshop evaluation mean scores
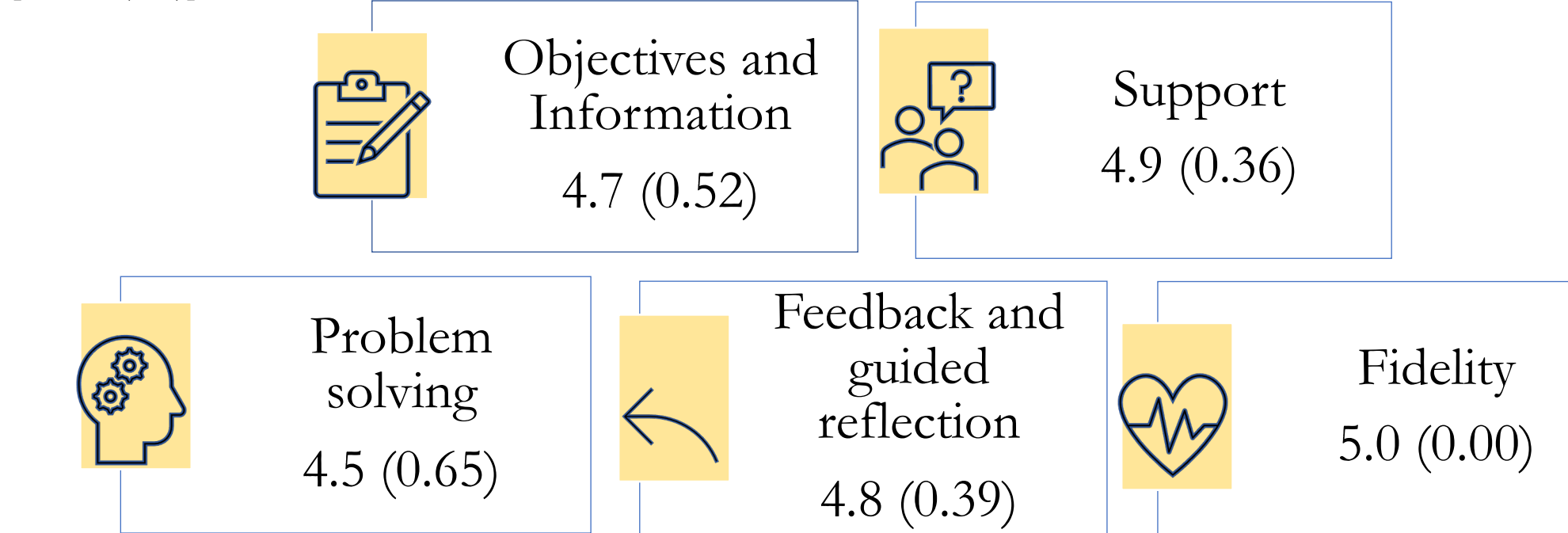
Aim 3: Confidence & Application
[mean, (SD)]

Figure 3. Satisfaction and Self-confidence in Learning

- Self-confidence in Learning 4.9 (0.28)
- Satisfaction in Learning 4.8 (0.35)

89% participants reported using knowledge and skill in clinical setting
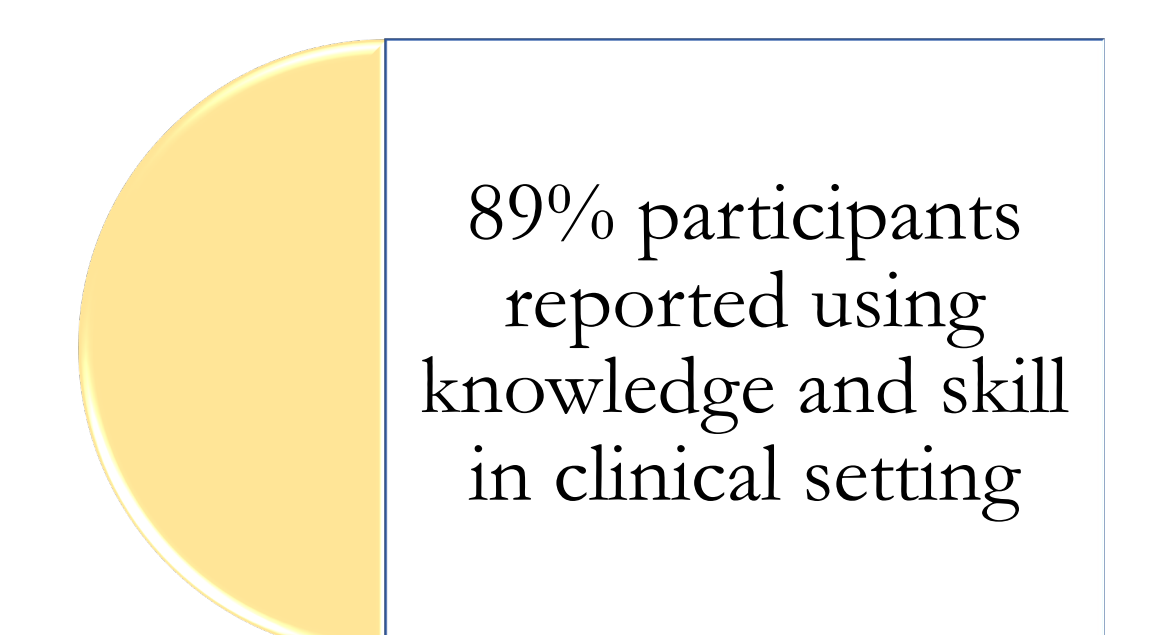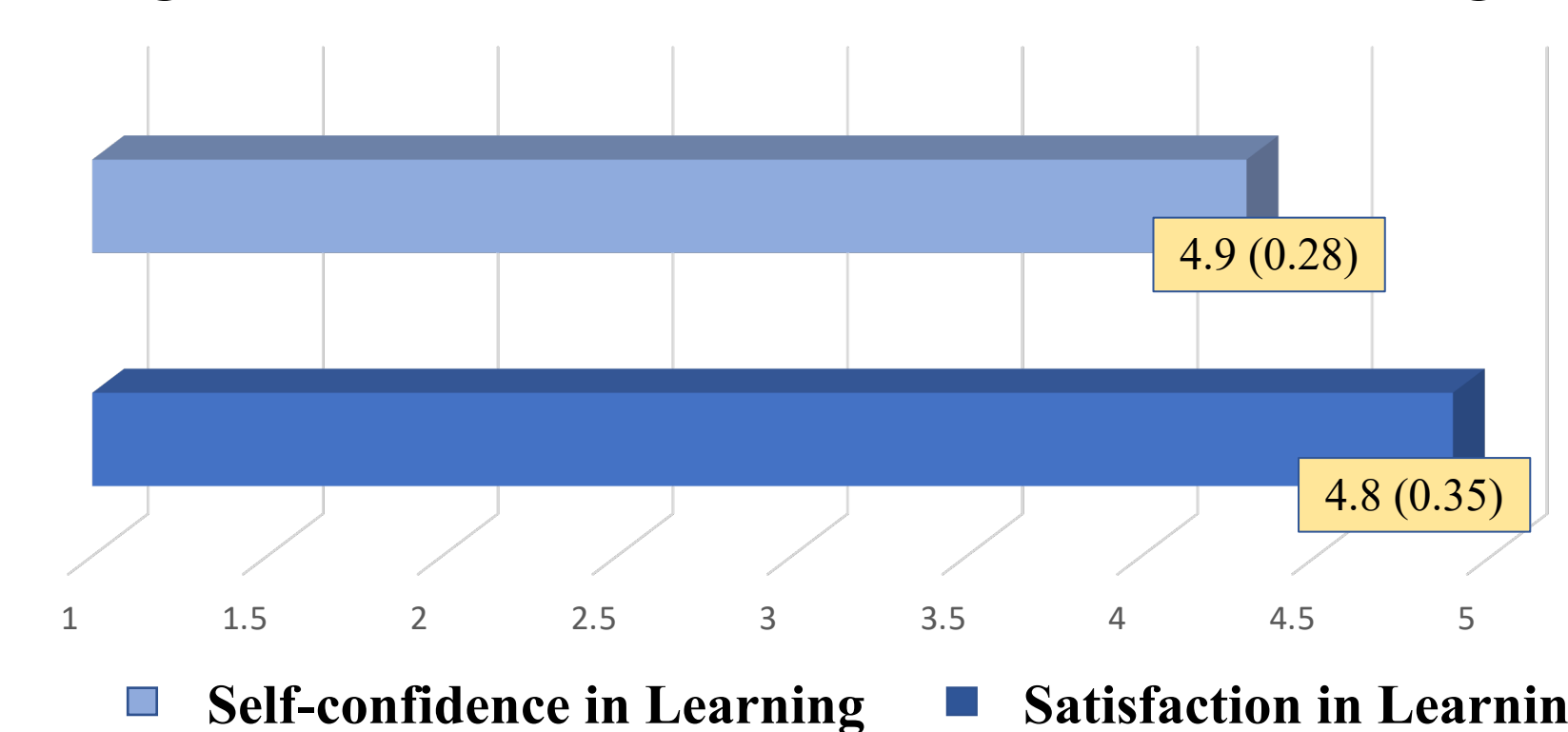
Conclusion

- ▪ New NPs show dramatic improvement in **knowledge** with anatomy specific training.
- ▪ Participants **perceive** improved knowledge, competence, and confidence.
- ▪ Intervention is **applicable** and practical to clinical setting.
- ▪ Project is fiscally responsible and **sustainable** for future iterations.

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