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# Closing the Experience Complexity Gap Using Peripheral IV Education

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Parkview Vascular Access Services

## Introduction

At Parkview Health System, a gap in peripheral IV (PIV) insertion education was identified.

- PIV insertion is not a curriculum priority in nursing school.
- In practice, IV insertion needs to be completed in a timely manner to avoid care delays.
- An aversion to starting PIVs, by new and seasoned nurses, create unique barriers to PIV insertion.
- Experienced nurses may not be well versed in placing IVs due to the availability of a hospital IV team.

To close the experience complexity gap and incorporate all learning styles, the Vascular Access Services (VAS) team at Parkview Health created a new concept PIV class. The class offers opportunities to visualize the material, listen to certified expert presenters, practice with the equipment hands on, and place an IV on a hospital patient with expert help and supervision.

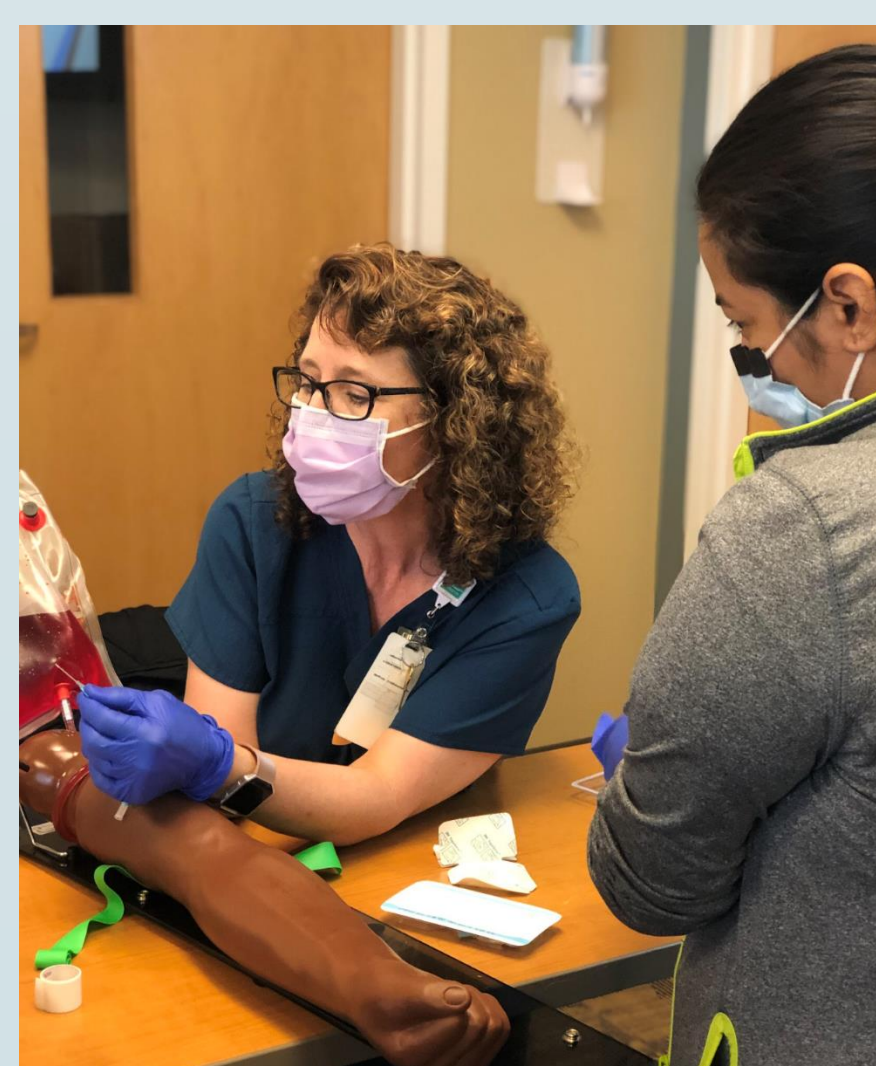
## Goals

### Initial Goals:

- Increase confidence and empower bedside staff to evaluate current IV access for appropriate location and function
- Encourage staff to assess patients' veins
- Encourage staff to attempt to obtain IV access when needed

### Secondary Goals:

- Increase the trust and connection between clinical staff and the VAS team
- See a decrease in requests for simple IV starts



## Methods

### Class Setup:

- Elective course with continuing education hours offered
- Taught by content experts (Vascular Access Services Team Members)
- Hybrid Course Design
  - Two hours of didactic education
  - Two hours of hands-on education at the bedside

### Class Content:

#### Didactic Education Sections:

- Basic safety	- Vein Optimization/Stabilization
- Environment Optimization	- Institution Specific Policies regarding PIV Placement
- Tourniquet Application	- Step-by-step instructions of insertion and dressing using institution specific PIV
- Vein Identification	- IV Complications and Treatments
- Hands on skill practice	- 1:1 guidance/instruction during insertion on life-like mannequins



### Bedside Education

- Supervised PIV insertion
- Goal: All class participants attempt a PIV

### Data Collection:

#### Pre-class assessments

- Six question pre-test and self-assessment

#### Post-class assessments

- Six question post-test (same day)
- 2-3 month post-class self-assessment

## Results

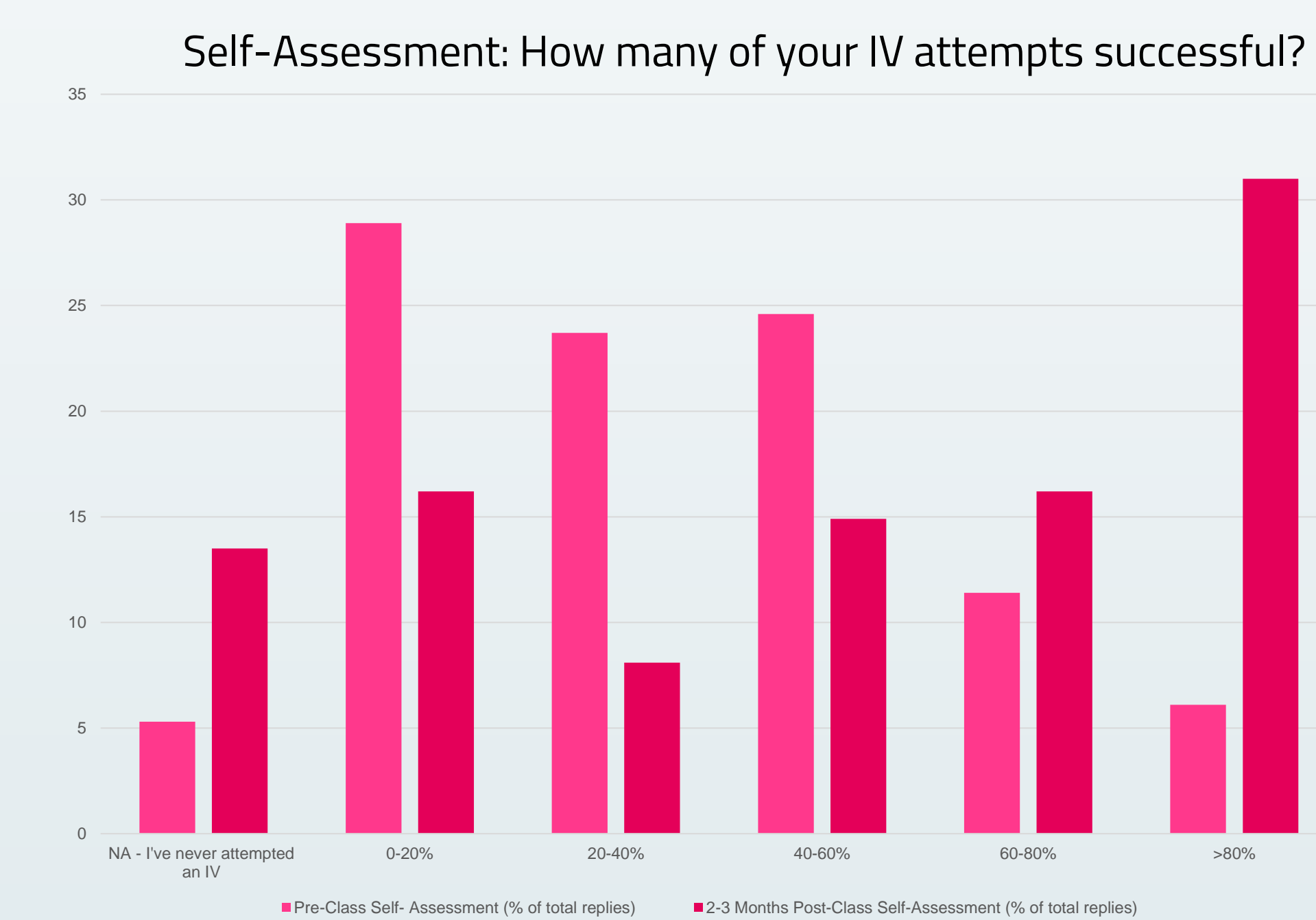
Data pool: 114 participants  
74/114 post-class assessments returned

### Test Scores

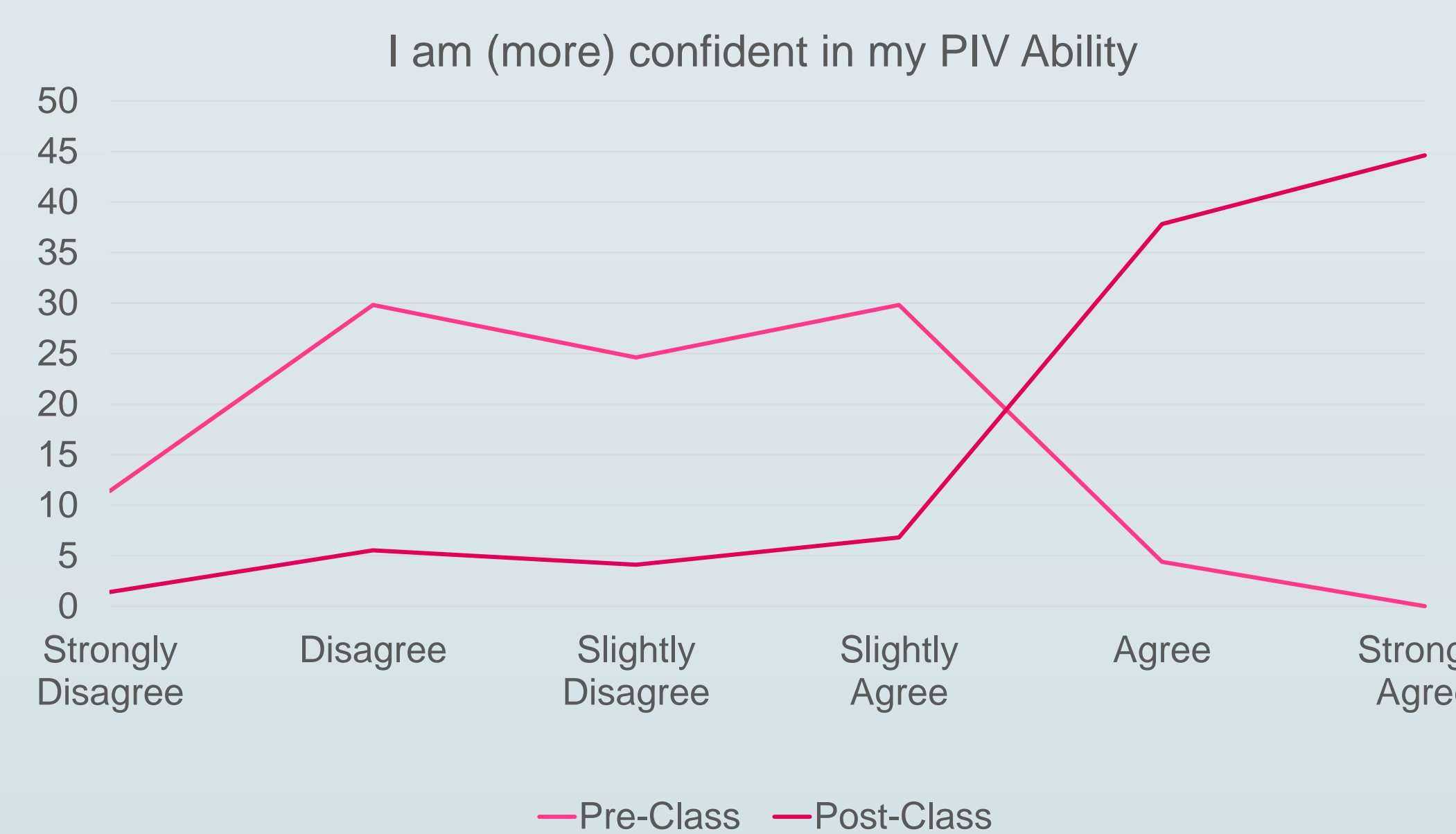
- 98.25% of participants improved their test scores
- Average Scores: Pre-test 3.8/6.0 Post-test 5.8/6.0

### Self-Assessment Data

- PIV success rate of greater than 60% more than doubled 2-3 months post class



- 82.4% report feeling more confident in their PIV ability after attending the class



### VAS Simple IV Starts\*

2018- ~16,623

2019- ~17,141 – Trial run of classes initiated late 2019

2020- ~15,327

2021- ~14,507

\* an additional ~160 beds have been added to the facility since 2019

## Discussion

- Hybrid PIV education increased nurses' confidence in their PIV ability
- Class attendees show an increase in basic PIV knowledge.
- Requests for basic PIV starts have decreased since starting the PIV classes, despite an increase in patient volume.
- Overall, attendees are satisfied with a hybrid education format
- PIV Class enrollment reflects continued interest in PIV education
- PIV education can be modified and adapted for specific nurse and patient populations



## Conclusion

Focused education taught by expert instructors in vascular access skills can improve peripheral IV insertion knowledge and confidence.

Timely PIV placement by skilled nurses can prevent delay of treatment, decrease hospital length of stay, and increase patient satisfaction.

## Acknowledgements

THANK YOU to the numerous people who have made this class a success!

- Parkview Vascular Access Services Team
- Susan Ryan and Andrew Miller, PIV Class Instructors and Content Experts
- Penny Hughes, Content Expert
- Parkview Health
- Parkview Education Steering Committee
- Parkview Education Department
- Jan Powers