

Peripheral Intravenous Cannulation. A Knowledge, attitudes and practices survey in an undergraduate nursing and midwifery cohort.

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INTRODUCTION

The Irish undergraduate nursing and midwifery curriculum was recently updated to include the education and training of peripheral intravenous cannulation (PIVC) and venepuncture.

Recent studies note that students and graduates knowledge, confidence and skills in vascular access are lacking 1-4.

AIM

The aim of this research was to evaluate the current training programme, considering these skills can be difficult to learn and perform

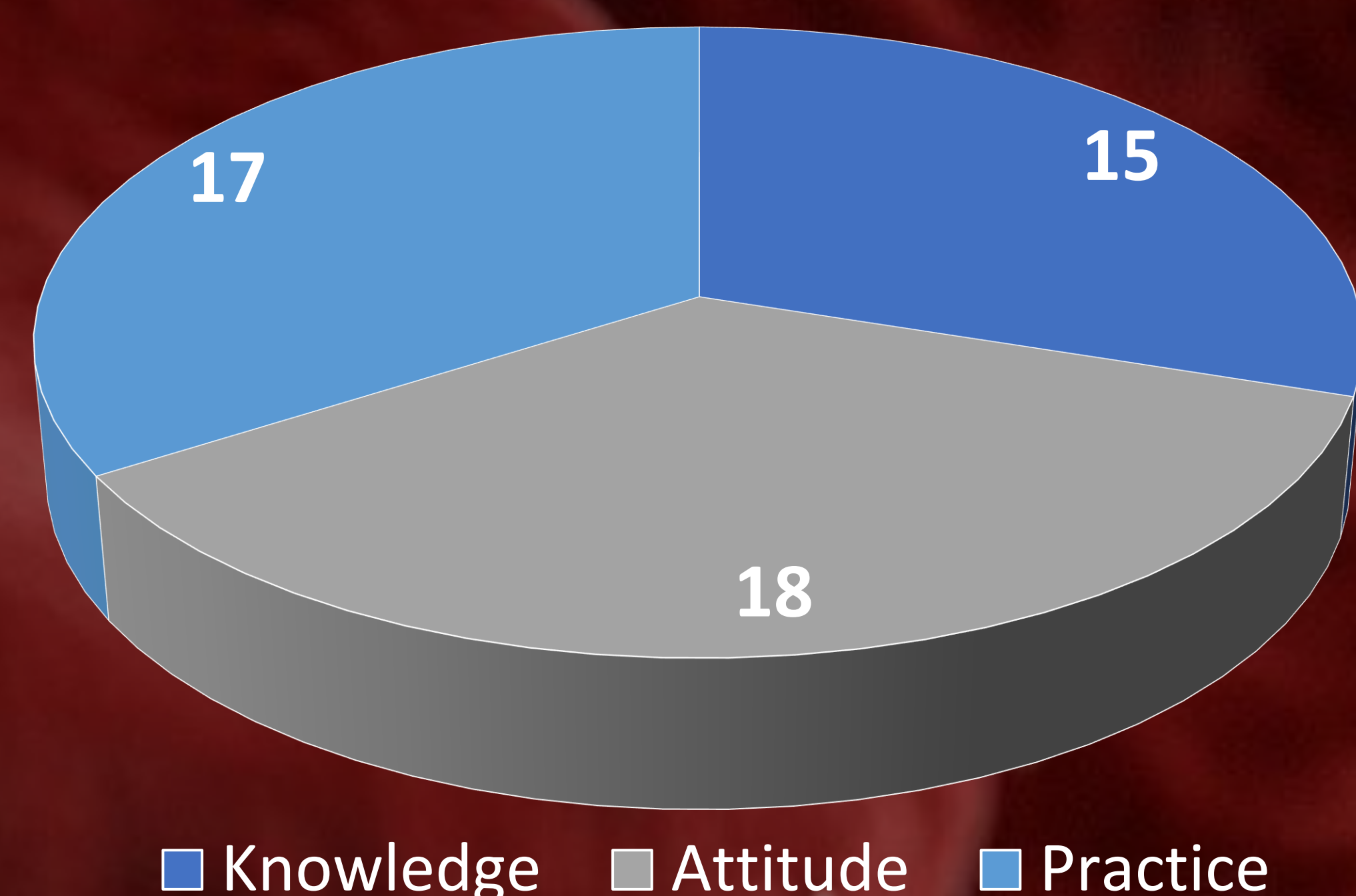
This evaluation, once completed, aimed to develop a data informed curriculum.

METHOD

Following ethical approval, a survey instrument was finalised via face and content validity. Experts performing validity included nurse educators, patient and public involvement members and international vascular access experts.

The survey, included both closed and open-ended questions and included the following question categories;

QUESTIONS

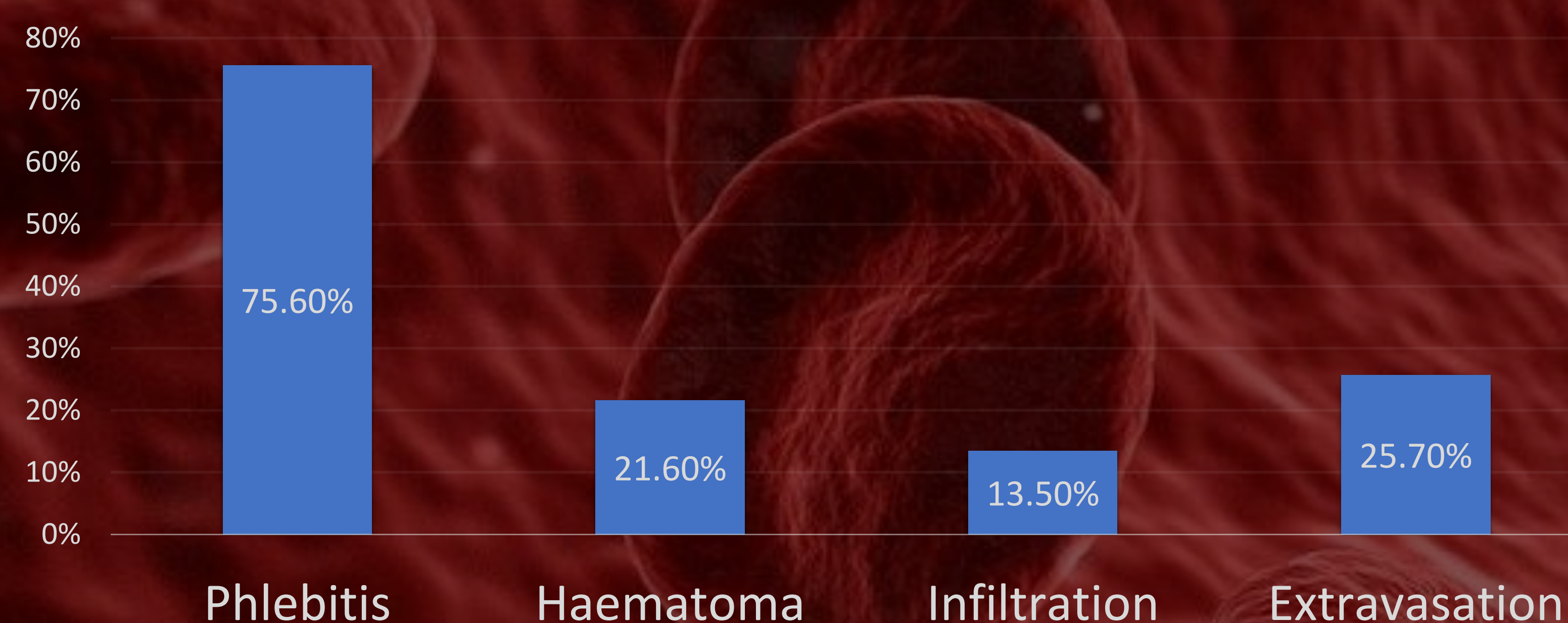


The survey was disseminated via an online platform to a group of final year undergraduate nursing and midwifery students in an Irish university.

RESULTS

The survey response rate was 47% (n=38).

The mean knowledge score was 7.2/15 (48%). The below chart demonstrates the percentage of students who gave an acceptable response when asked to explain PIVC complications



The mean attitude score was 10.2/18 (56.6%).

Students were noted to have negative attitudes (mean score < 6.00) in their confidence in performing PIVC and venepuncture, with even less confidence in performing these skills on the first attempt.

However, they acknowledged positively (mean score > 6.00) the importance of performing these skills on the first attempt.

Qualitative data were categorised from students suggestions on how the training could be improved. Such as;



CONCLUSION

Findings from this study can help influence a data informed curriculum. This can help educators and supervisors in both academic and clinical settings to identify areas of potential improvement.

This study suggests there are opportunities for improvement in undergraduate nurse and midwife PIVC and venepuncture training.

REFERENCE

1. Ray SR, Taylor E, Sherrill KJ, Steinheiser MM, Berndt DL. Effect of infusion therapy interactive modules on nursing student's knowledge and self-confidence. Teaching and Learning in Nursing. 2022;17(1):109-12.
2. Hunter MR, Vandenhouten C, Raynak A, Owens AK, Thompson J. Addressing the silence: A need for peripheral intravenous education in North America. Journal of the Association for Vascular Access. 2018;23(3):157-65.
3. García-Expósito J, Reguant M, Canet-Vélez O, Mata FR, Botigué T, Roca J. Evidence of learning on the insertion and care of peripheral venous catheters in nursing students: A mixed study. Nurse Education Today. 2021 ; 107:105157.
4. Etafa W, Wakuma B, Tsegaye R, Takele T. Nursing students' knowledge on the management of peripheral venous catheters at Wollega University. PLoS ONE. 2020 ; 15(9): e0238881.