

ABSTRACT

Purpose: The purpose of this study was to determine critical care nurses' evidence-based knowledge of management of central venous catheters in four intensive care units in a central hospital in Gauteng

Background: Central Line-Associated Bloodstream infections (CLABSI) are associated with high morbidity and high medical costs. Evidence-based guidelines for the prevention of CLABSI are available to assist in the proper care and maintenance of central venous catheters. However, these infections continue to emerge in the intensive care units. This may be due to the lack of evidence-based knowledge on the management of central venous catheters by critical care nurses. Prevention of CLABSI demands proper management of central venous catheters by knowledgeable and skilled staff. Hence there is a need to establish the baseline knowledge level of critical care nurses regarding the evidenced-based practice management of central venous catheters.

Methods: A quantitative, descriptive, non-experimental cross-sectional research design was used to meet the study objective. The total sample comprised of trained critical care nurses. Data was collected in four adult ICUs using a validated questionnaire developed by Esposito et al. (2017). TIBCO Statistica software version 14.0 was used for data analysis. Descriptive and inferential statistics were used to describe the data. Non-parametric statistical tests (Mann-Whitney U-test, Kruskal-Wallis test & Spearman's correlation coefficient) were used for comparison. Testing was done at P-value <0.05 for level of significance.

Results: A total of 94 questionnaires were distributed, and 80 were returned (response rate 85.1%). The overall median score in knowledge test was 81.8% and IQR was 72.7%-90.9%. 76.25% (n=61) scored above the competency mark of 70 with only 23.75% (n=19) scoring below 70. There was no significant difference between knowledge and qualifications. There was a positive moderate correlation ($r=0.41$) between age and knowledge and there was a weak correlation ($r=0.29$) between years of experience and knowledge.

Conclusion: The study concludes that critical care nurses had good baseline knowledge of the evidence-based guidelines for the management of CLABSI. However, there were areas where this can be improved. This high level of knowledge and the presence of CLABSI lead to the question of whether this knowledge is being applied in real clinical setting and opens a path for further research in this regard.