CCU NURSES' KNOWLEDGE REGARDING VENTILATOR-ASSOCIATED PNEUMONIA IN A PRIVATE HOSPITAL GROUP IN GAUTENG

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BACKGROUND

Patients admitted to the Critical Care Units (CCUs) are in need of a collaborative care of the specialist multidisciplinary team (De Beer, Brysiewicz & Bhengu, 2011) as they face life-threatening clinical challenges. The morbidity and mortality rate attributed to Ventilator-Associated Pneumonia (VAP) remains high despite many interventions for VAP prevention. Critical care nurses fulfil a fundamental role in ensuring that the care of these patients is above the standard of the general unit. To achieve this nurses working in CCUs should have an above-average level of knowledge and the application of their knowledge should not be doubted in decision making and implementation of evidence-based nursing interventions. It's been three years since the national launch of the Best Care Always! campaign in 2010 and the bedside evidence of the consistent implementation of the VAP bundle remains questionable. This led to the investigation of the knowledge of CCU nurses regarding VAP in a private hospital group in Gauteng.

PURPOSE

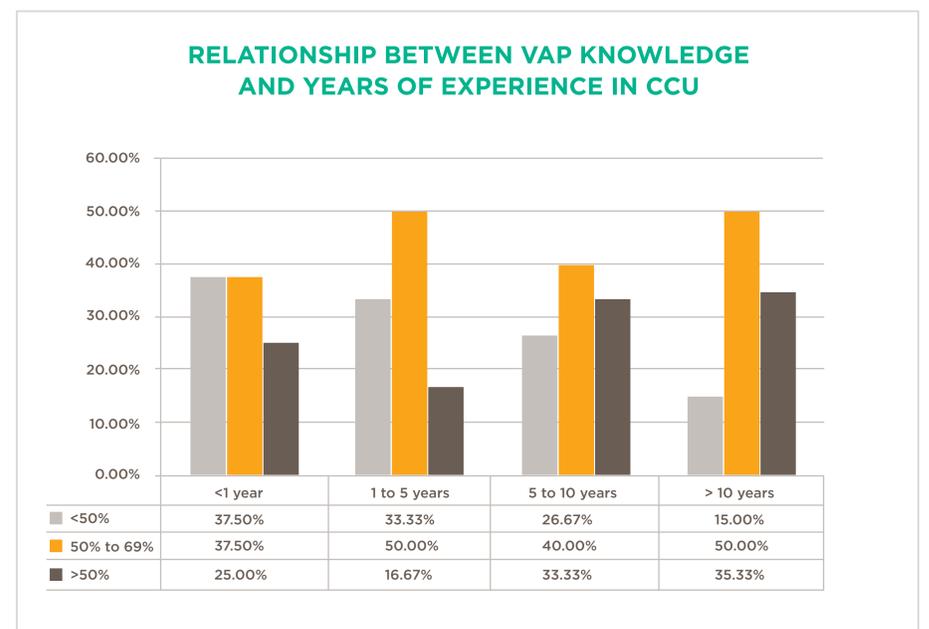To describe CCU nurses' knowledge regarding the prevention of VAP.

DESIGN AND METHODS

A quantitative cross-sectional multi-site survey was conducted to describe CCU nurses' knowledge regarding the prevention of VAP in a private hospital group in Gauteng. Data was collected using a self-administered questionnaire in six adult CCUs of a private hospital group in Gauteng. Descriptive statistics were used for data analysis.

RESULTS

A total of 250 questionnaires were distributed among the six CCUs in Pretoria; 89 were returned making 36% return rate. The survey used a modified questionnaire of Jansson et el., (2013) with three additional questions. Eight questionnaires were excluded from the analysis due to a lack of completeness. The mean score for CCU nurses' knowledge regarding VAP prevention was 58.05 (SD17.978) with the minimum score achieved of 16.67% and maximum of 91.67%. Twenty-five participants (28.41%) obtained scores below 50%; forty-five (45.45%) obtained scores between 50% and 69%, and twenty-three (26.17%) obtained scores above 70%. See Figure 1 for the relationship between VAP knowledge and CCU training and for distribution of results. A relationship is seen between years of experience in CCU and knowledge level regarding VAP. This relationship was statistically significant (p = 0.572).

Figure 1:

RELATIONSHIP BETWEEN VAP KNOWLEDGE AND YEARS OF EXPERIENCE IN CCU

	<1 year	1 to 5 years	5 to 10 years	> 10 years
<50%	37.50%	33.33%	26.67%	15.00%
50% to 69%	37.50%	50.00%	40.00%	50.00%
>50%	25.00%	16.67%	33.33%	35.33%

DISCUSSION

Ventilator-Associated Pneumonia rates remain high despite the monthly compliance reports showing excellent compliance in these units. Knowledge has been proven to influence practice (Kalofissudis, 2007; Chinn and Kramer, 2004) and the way we live in society. The findings of this study are consistent with the literature (Jansson et al., 2013; Gomes, 2010: Botha, 2012) describing low average knowledge level of CCU nurses on VAP and related aspects. For the majority of nursing students to be declared competent on basic and advanced nursing procedure a pass score of 70% is usually used as a deciding score on whether competent or not competent.

Gomes (2010) reported the knowledge level of both CCU qualified and non-qualified to be lacking with only 21.69% achieving a pass mark of 70% on the knowledge test regarding VAP. In the current study only 26.14% (n = 23) of CCU nurses achieved the competence mark. This could explain why the VAP rate remains high despite the rollout of the VAP bundle.

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