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The Use of Knowledge of Respiratory Physiology in Critical Care Nurses’ Clinical Decision-making

A thesis presented in partial fulfilment of the requirements for the degree of

Master of Arts
in
Nursing

at Massey University, Albany, New Zealand.

Alison Margaret Pirret

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ABSTRACT

The knowledge and experience of expert nurses has long been recognised as contributing to early identification of patient problems, early intervention and an improved patient outcome. The present study sought to answer the research question, following completion of a critical care specialty practice programme, do nurses use knowledge of respiratory physiology in their clinical decision-making? An evaluation methodology using a managerial perspective was used to compare the use of knowledge of respiratory physiology in critical care nurses’ clinical decision-making with the respiratory physiology recommended in the New Zealand Standards for Critical Care Nursing Education (Critical Care Nurses’ Section, 2000).

Using intensity sampling, 27 nurses who had completed a critical care specialty practice programme and who were currently working in the critical care units of two tertiary hospitals in a large metropolitan city within New Zealand were selected. Quantitative and qualitative methods were used to collect data. Data analysis was completed using descriptive statistics, correlations and identification of common terms and themes.

The results showed that following completion of a critical care programme, critical care nurses demonstrated a low to medium level of knowledge of respiratory physiology in their clinical decision-making. In the total group, no statistically significant associations were found between the use of knowledge of respiratory physiology in clinical decision-making and age, experience, academic level, use of guidelines and protocols, standards and integrated care pathways, conference attendance, reading of journals and accessing the World Wide Web for literature. Qualitative analysis identified factors contributing to the low to medium use of knowledge as being nurses’ high reliance on intuitive knowledge, lack of in-depth discussion of respiratory concepts in critical care programmes, lack of opportunity in the clinical practice environment to discuss respiratory physiology and lack of collaborative practice.
The study identified the need for more collaborative practice and for clinical nurse educators firstly, to have a closer relationship with the critical care programme providers to ensure adequate theoretical content and secondly, to work with nurses in the clinical setting.
This thesis is titled *The use of knowledge of respiratory physiology in critical care nurses’ clinical decision-making*. The research has been completed to fulfil the requirements of a Masters of Arts (Nursing) degree through Massey University. The researcher for this study is Alison Pirret, who is employed as a registered nurse, intensive care, Middlemore Hospital and is also self-employed as a clinical nurse specialist intensive/acute care.

The primary supervisor for this thesis is Stephen Neville, Lecturer, School of Health Sciences – Albany, Massey University. The secondary supervisor for this research is Dr. Nick Nicol, Senior Lecturer, School of Health Sciences – Albany, Massey University.

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Approval for this research was obtained from both the Massey University Human Ethics Committee and the Regional Ethics Committee. Due to the requirement to maintain confidentiality and anonymity of the participants and critical care units involved in this study, the specific Regional Ethics committee will not be named in this document.
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