NURSING IN CRITICAL CARE Issue 25-1

What's In This Issue

Welcome to the first issue of *Nursing in Critical Care* for the new year. In our editorial for this issue [1], we discuss the impact of critical care nursing and outline some of our plans for the journal in the context of the World Health Organisation's designation of the year 2020 as the Year of the Nurse and Midwife. The rest of this issue celebrates this designation through a collection of UK and international papers about various aspects of critical care nursing, including pain assessment and management, critical care outreach services, assessment and management of enteral nutrition, patient diaries in paediatric intensive care settings, cardiac telemetry monitoring, critical care competency frameworks and oral care for intubated patients.

Pain assessment and management is a central nursing responsibility in various settings [2,3]. In critical care, this role is especially important due to various interventions known to exacerbate pain, but also particularly difficult since several critically ill patients cannot communicate their symptoms due to intubation, mechanical ventilation and impaired consciousness, which may lead to undetected or inadequately managed pain. This underscores the importance to assessing critically ill patients' pain through using validated and reliable instruments, such as the Critical-Care Pain Observation Tool (CPOT). Conscious of the importance of reflecting of reflecting cultural and linguistic nuances in pain assessment tools, Emsden et al [4] tested the clinical feasibility, criterion and discriminant validity, sensitivity, specificity, internal consistency and inter-rater reliability of the German version of the CPOT in a two-phased study in a medical and a surgical intensive care unit in a university hospital in Basel, Switzerland. The meticulous description of procedures used in this study should help to guide other researchers who need to adapt a patient assessment scale to another language, but should also remind clinicians to intensify their efforts at accurately identifying and managing critically ill patients' pain and discomfort. Furthermore, the paper reiterates the importance of further research in pain assessment and management in critically ill patients with delirium, which, as confirmed by this study, is particularly problematic.

Critical care outreach services (CCOS) were introduced to reduce intensive care unit (ICU) admissions, speed up discharge from ICUs, and train and empower staff in promptly and effectively identifying and managing deterioration [5,6]. Yet, the evidence on the effectiveness of CCOS in achieving these objectives is inconclusive and at times contradictory. This led Hyde-Wyatt and Garside [7] to conduct an evaluation of the impact of the CCOS in a UK general hospital through the perspective of ward staff. Their paper in this issue reviews the literature on this topic, describes the development of a data collection tool for CCOS evaluation and outlines efforts to enhance its validity and reliability. Although it was limited to a non-random sample of participants from two general medical and surgical wards, through quotes from clinical staff from various professions, this evaluation provides invaluable insight about the occasionally intangible benefits of a CCOS. Consequently, this paper underscores the value of multiple methods of evaluation for complex interventions like CCOS, the benefits of which may be difficult to demonstrate quantitatively, due to various

ethical considerations and methodological constraints. It also provides an excellent example of how critical care nurses can, and indeed should, evaluate their practices and disseminate their findings to improve their own and others' organisations.

Malnutrition has been associated with an increased risk of infection, pressure ulcers, duration of mechanical ventilation and hospitalisation, morbidity and mortality [8,9]. Although enteral nutrition (EN) involves interprofessional collaboration, it is usually nurses who assess critically ill patients' nutritional status [8], commence and monitor EN and identify and manage complications [9,10]. Protocols guiding EN support have been introduced in various critical care settings, but evidence on their effectiveness in improving patient outcomes is lacking. This was the focus of the literature review by Jordan and Moore [11]. The review confirms protocols' potential to enhance the standardisation of EN related practices, such as managing gastric residual volumes, feeding interruptions and other complications. Yet, what is perhaps most striking from this review is the substantial variability *between* protocols, which does lead one to question whether some protocols are sufficiently based on evidence. The review was limited to ten studies published in English and retrieved from a systematic search a single database. Yet, it serves to highlight the need for more focussed research on the effectiveness of protocols because the aims of the retrieved studies varied substantially and most did not measure patient outcomes.

Lynch and colleagues [12] investigated the use of patient diaries in Paediatric Intensive care Units (PICUs) across the UK, in a cross-sectional survey. They found that just under half of all 30 UK PICUs provided patient diaries, with concerns over professional and legal issues emerging as predominant reasons for not using them. They noted the way that diaries were used were fairly similar across units, with most participants claiming they provided these diaries to fill gaps in memory, to provide an explanation of what had happened and/or to engage family members in care. Almost all reported that parents were the main contributors to these diaries. This study provides a useful gauge of diary use in PICUs across the UK and as the authors rightly suggest further research into the short- and long-term impact of these diaries for the patient and family.

The Norwegian study by Falun et al [13] used a survey design to explore cardiovascular nurses' knowledge about and reported adherence to practice standards for in-hospital cardiac telemetry monitoring. A questionnaire was constructed, tested for face validity and distributed to the participants at two annual national cardiovascular nursing congresses held six years apart to investigate changes in knowledge and practice by time. Between the first and second survey, there was a significant increase in awareness of the American Heart Association (AHA) practice standards, in the use of a local protocol and in implementation of practices to enhance monitoring accuracy and prevent infections. However, a significant portion of the participants failed to adhere to the practice standards about electrode placement, skin preparation and information provision to patients. Although the survey achieved a high response rate, great caution should be applied in extrapolating the findings to other countries. Yet, the generally insufficient knowledge and suboptimal adherence to the practice standards reported in this study are congruent with similar studies conducted

elsewhere [14,15] and as such should prompt educators, managers and practice development nurses to intensify their efforts in providing education and training on in-hospital telemetry monitoring.

The value of competency frameworks in nursing in general and in critical care nursing in particular is well established in the literature. Indeed, competency frameworks have been introduced in several countries to stipulate the knowledge, attitudes, skills and values required by health professionals to fulfil specialised roles [16,17]. What is perhaps less prevalent in the published literature is information about the *process* of setting up such frameworks. The paper by Zhang et al [18] helps to address this gap by explaining the development of a competency framework for specialist critical care nurses in China. The process consisted of multiple stages, including a review of the literature and focus groups to generate a preliminary framework; a modified Delphi technique with three rounds to refine the framework components on the basis of consensus; and a final validation exercise with external experts. The quality of the study was enhanced by the number and expertise of the participants from various professional groups and geographical regions, the satisfactory participation and retention rate in the various rounds of the consultation and the high threshold for ensuring consensus. As acknowledged by the authors, the main limitation was the failure to include patients' or their relatives' perspectives. Yet, the clear audit trail provided in this paper should serve as a benchmark for future attempts at developing or updating critical care nursing competency frameworks.

Tanguay et al [19] studied factors influencing nurses' oral care practices in intubated patients in adult ICUs across French-speaking Canadian units. In a postal survey completed by 375 nurses (with a response rate of 38.5%) they found that perceived behaviour control and attitude were the most important determinants in the level of intention to implement oral care. They also noted that nurse experience was a significant factor in explaining this perceived control over professional behaviour, with nurses that had specific training in oral care having a more positive attitude towards this practice. Despite the acknowledged limitation of a small sample size, this study does provide a greater understanding of the factors that influence nurses' behaviour in performing oral care in the ICU, and should prompt similar studies in other geo-cultural settings.

These papers address a range of contemporary issues in critical care nursing. We hope that you find these research studies, literature review and evaluation papers insightful and that they provide motivation for your practice, teaching and research in the new year ahead. We wish all the readers of *Nursing in Critical Care* a productive and rewarding 2020.

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