

Building a community of practice in critical care nursing

In recent years, there has been abundant research evidence and clinical practice guidelines published on improving critical care patient outcomes. However, research has shown that a gap between research evidence and critical care practice exists which is composed of both inadequate application of research evidence to clinical practice and suboptimal adherence to evidence-based guidelines by clinicians (Heyland *et al.*, 2003; Cahill *et al.*, 2010; Grol *et al.*, 2013). Translating research evidence and recommended clinical practice guidelines into clinical practice is a complex process that requires the ongoing collaborative efforts of researchers and clinicians, and the publication of research evidence cannot guarantee its application in clinical practice (Graham *et al.*, 2010; Straus *et al.*, 2013). This raises a question for the critical care community: what is the best way to promote the optimal use of research evidence in critical care? Wallis and Chaboyer (2012) reported that the introduction of a 'clinical chair' position, which acted as a link between a tertiary hospital and a university in Australia, promoted clinical research and practice improvements in many clinical areas of the hospital and increased the research outputs of both the hospital and the academic institution. This type of formal structure will certainly facilitate the use of research evidence in clinical practice and clinical research. However, not all health care facilities have the funding for this – particularly smaller hospitals. Would an informal structure, such as a Community of Practice (CoP) in critical care be a way to bridge the gap?

The concept of CoP was introduced in the early 1990s, with most papers published a decade later in 2007

(Ranmuthugala *et al.*, 2011). Over time, the concept of CoP evolved from the early stages of participation and interaction with colleagues to enhance learning, to a concept of achieving learning through knowledge development and participant collaboration within or across organisations (Ranmuthugala *et al.*, 2010). Interest in building CoPs in the fields of education and health care has increased in recent years. In the health care sector, due to the rapid knowledge advancement, many organisations have promoted the establishment of CoPs in order to improve patient safety and prevent adverse events (Ranmuthugala *et al.*, 2010). However, there has been limited literature available on CoP in critical care nursing.

The concept of CoP has been developed since 1991 (Wenger, 2000). In 1991, Lave and Wenger introduced CoP in their situated learning theory which has an emphasis on the development of novice and expert relationship (Wenger *et al.*, 2002). CoP was later defined as: '*Groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in the area by interacting on an ongoing basis.*' (Wenger *et al.*, 2002, p.4). Participants with various levels of professional competence, such as junior and senior nurses, who have a shared interest and understanding in knowledge and practice, engage voluntarily in an informal community in a given context. Lave and Wenger further developed the concept in 1998 to focus on the interaction between people, and the participation of members who actively engage in sharing and creating knowledge (Wenger *et al.*, 2002). At this stage, a CoP was considered a joint enterprise, with members' mutual engagement,

and a shared repository of resources. In 2002, Wenger *et al.* (2002) redefined a CoP as an informal tool to bring together a group of people who work in parallel in order to share knowledge and to innovate practice. These people have a shared interest and pursue innovative ways to improve practice, and share resources. One important issue to be noted is that a CoP is considered different from a network, because members of a CoP share a mutual interest in something, in contrast to the informal relationships in networks which are often related to a broad area of practice (Andrew *et al.*, 2009).

Typically, the majority of the reported CoPs have consisted of members from more than one profession or organization (Ranmuthugala *et al.*, 2010). The interactions among CoP members most often occur in the workplace. Face to face, e-mail and web-based communications are the most common ways for CoP members to communicate, with most studies reporting that a combination of methods were used (Ranmuthugala *et al.*, 2011).

There has been debate about the concept of CoP. First, as informal learning structures, it could be seen as a powerless community (Jewson, 2007). Wenger (2000) argued that CoP is a learning concept and that learning is power. In nursing, a CoP may consolidate the nursing profession's identity. Second, there is the critique that the concept is anachronistic and it should have a more dynamic structure (Engstrom, 2007). Jewson (2007) expressed similar concerns, preferring 'network' instead of 'community' as the former term is more adapted to the Internet word of learning. But Wenger (2000) argues that while a network connects people

with no implication of commitment or shared goal, a community voluntarily commits to a learning partnership with an explicit purpose.

Regardless of the debates, in health care, CoPs can be used as a way to enhance knowledge translation, challenge, improve and reshape existing clinical practice, and develop clinical knowledge (Andrew and Ferguson, 2008, Burrell *et al.*, 2009). In their systematic review on health care CoPs, Ranmuthugala *et al.* (2011) concluded that there are two equally important purposes for establishing a CoP in the health care sector: learning and sharing knowledge and information, and changing clinical practice and promoting best research evidence in clinical practice. One key role of a CoP is to combine the expertise of clinicians and nursing academics. There have been some examples of nursing CoPs in the literature. Andrew *et al.* (2009) reported a CoP, established by a group of Scottish nurses, in a gerontological nursing demonstration project (GNDP). The clinical nurses collaborated online with a group of nursing academics to explore allegedly outdated gerontological practice. This CoP resulted in some best practice statements being developed, which were distributed across Scotland.

In critical care, a CoP may take various forms and has different member compositions. It could consist of clinicians from one or more disciplines and institutions who have a common interest in the development of a particular patient care area. It could consist of clinicians and academics within or across institutions. An Australian critical care CoP, which used a social networking website for knowledge management and clinical development for clinicians, including physicians, nurses, and academics, was used by the participants as a way to seek advice and discuss clinical issues in critical care (Rolls *et al.*, 2008, Burrell *et al.*, 2009).

A CoP in critical care has the potential to allow nursing clinicians and academics to collaborate, challenge and

change clinical practice to improve nursing care and patient safety in critical care. The topic of the CoPs can be of an explicit interest, for example, topics of common interest to critical care nurses including patients safety, weaning patients from the ventilator, patient experiences in ICU, patient discharge process, pressure ulcer care, rapid response team, to name a few. A CoP in critical care may foster partnership and collaboration between bedside nurses, team leaders, nurse educators, nurse academics and other disciplines. This partnership, built on trust and respect within the CoP participants, allows members of the CoP to participate, contribute and improve patient care.

A CoP in critical care may provide opportunity for clinicians to access untapped resources, such as the knowledge and research evidence from academics. Many nursing academics who came from clinical nursing backgrounds, now teach and conduct research in the higher education sector. However, these academics often work in the university sector and are somewhat detached from clinical practice. These academics can be seen as an 'untapped resource' for the clinicians. Accessing this untapped resource can promote critical care clinical research. By asking questions within the CoP, members may learn alternative ways for clinical practice which may improve patient care and patient outcomes. Similarly, clinicians often identify areas requiring improvement in their clinical practice. Members of a CoP are able to communicate the issues they identify with each other as they arise, which can result in collaborated multidisciplinary, or international (depending on the member composition of the CoP) research projects. Clinician's involvement in critical care CoP may facilitate clinical research by offering support and assistance to academics to access research sites and understand the needs of research in clinical practice.

A CoP is a concept of collective learning in practice with the same learning goal. Learning takes place in relation

with others and it also forms a body of knowledge and a whole landscape of practice in critical care nursing. This landscape shows the history and knowledge development of a profession and according to Wenger (2000), the process of learning creates boundaries which distinguish those participants who involve and engage in the community from those who do not. The boundaries of this landscape, which are often invisible, shape the landscape of clinical practice. This landscape involves not only the education but also research and clinical practice in critical care. The development of critical care nursing profession needs the collaborative effort of both clinicians and researchers to improve the knowledge development of clinical practice, research and education. Finally, learning takes place in relation to others and creates possibilities for nurses to move forward, thereby developing the profession.

In summary, regardless of debate about the power of a CoP and where it is situated in the landscape of clinical practice, building CoPs among clinicians and academics in critical care may have two broad aspects of benefit. First, the clinicians have the opportunity to stay abreast of new research evidence offered by the academics, and discuss and share expertise on how to apply research evidence into clinical practice. Second, it gives the clinicians the opportunity to bring their observations and concerns to the community for future research and development. We propose that a critical care CoP should consist of clinicians and academics from various disciplines, and from one or multiple organisations. The aim of the CoPs in critical care should have a clear focus on a particular clinical topic. The exchange of knowledge between clinicians and academics in a CoP should be built on respect for each other's predominant knowledge fields and this may bridge the gap between research evidence and clinical practice. Current literature suggests that interactions of CoP members mostly happen at their

work place, therefore organisational support on meeting space, time and related resources are important for the success of CoPs in critical care. By combining the expertise of nursing clinicians and nursing academics, a CoP can aim at sharing and developing knowledge, with the purpose of contributing to better evidence-based clinical practice and the continuing development of critical care nursing profession.

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