Successful Virtual Communities of Practice in Health Care

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INTRODUCTION

Busy health care professionals are seeking ways to quickly communicate with their peers, seek advice from their professional community, and learn the latest news (McGarr, 2010). Rural and dispersed health care professionals seek opportunities to overcome professional, organizational, and social isolation (Barnett, 2012). At the same time, health organizations are continuously seeking improved ways to manage knowledge and improve performance, both for their employees and the organization as a whole, under a constrained budget (Ranmuthugala et al., 2011). One strategy suggested in the literature to overcome all the above problems is the use of Communities of Practice (CoP), which also has the potential to improve productivity, add value to resources, and deliver high quality patient care (Ranmuthugala et al., 2011).

Wenger is typically credited with the development of the metaphor of communities of practice where "learning requires an atmosphere of openness and the key is to build an atmosphere of collective inquiry" (Wenger, 1998). It is based on the theory of situated learning, where learning is more than acquiring knowledge, but involves a more complex relationship between novice and expert, participation in the practice, and developing an identity within the practice (Wenger, 1998).

Virtual communities for professionals, or virtual communities of practice (VCoP), were recently generated based on a need to seek guidance and advice from other professionals, have access to the latest news of innovative treatments, and access to resources (Nagy et al., 2006; Nazem, 2012). Virtual Communities in Practice were also a natural progression from the increased physician use of the Internet and online medical education (Curran & Fleet, 2005; Dube, 2006)

According to Bates & Robert (2002), VCoP are vitally important for health care professionals and organizations, as they spread best practices and change practice (as cited in Sandars & Heller, 2006).

Unfortunately, there is limited literature that examines VCoP for health care professionals, and even fewer studies that examine the characteristics of successful communities of practice and their impact on health care practice (Moule, 2006; Barnett, 2012). An initial review of the literature was completed in 2007. Five years later, in late 2013, the authors of this publication reviewed the most recent literature on VCoP (from 2006 – 2013) within the health care context, in order to support the position that establishing and maintaining such communities is useful for continuing professional development. The following databases where searched for relevant articles: ERIC, ProQuest, and PubMed.

Specifically, the article will focus on the benefits of VCoP's, the characteristics of successful VCoP's and examples of existing VCoP's with a focus on health professionals.

BACKGROUND

Communities of Practice (CoP) are 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 this area by interacting on an on-going basis" (Wenger, McDermott, & Snyder, 2002, p.4). Generally, such communities seem to be an innovative way to share and manage knowledge and sustain innovation (Wenger et al., 2002).

"Virtual Communities of Practice (VCoP), without excluding face-to-face meetings, rely primarily on ICT to connect their members. A VCoP may use a large

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array of traditional media (telephone) and more or less sophisticated technological tools, such as e-mail, videoconferencing, on-line meeting spaces, or a Website/Intranet to establish a common virtual collaborative space (Demiris, 2006; Dube et al., 2006).

Virtual communities in health care refer to the group of people (and the social structure they create), who communicate via ICT for the purpose of collectively conducting activities related to health care and education. Such activities may include: discussions around problems, cases, best practices, management of diseases, or treatments, collaboration around patient care or research projects, sharing of documents and resources on topics of interest, consulting with experts, or generating new ideas and innovation (Demiris, 2006; Endslay, Kirkegaar, & Linares, 2005).

Dimensions of a Community of Practice

The following three dimensions are essential to a community of practice: 1) mutual Engagement, 2) joint enterprise, and 3) shared repertoire (Wenger et al., 2002).

Mutual engagement involves regular interaction among participants within the community. This interaction may be informal communication via e-mail and discussion boards, or more formal structured communication via monthly meetings over the Web (Wenger et al., 2002).

Joint enterprise refers to the process that maintains the community. This includes negotiating the endeavors of the community (Wenger et al., 2002).

Shared repertoire includes the ways, routines, and even language developed by the community (Wenger et al., 2002). Shared repertoire implies longevity, as such successful communities cannot flourish in a few months (Moule, 2006).

Benefits of a VCoP for Health Care Professionals

"Practitioners reflect on and learn from their practice in ways that incorporate both tacit and explicit knowledge (Doak & Assimakopoulos, 2007; Rynes & Bartunek, 2001; as cited in Bartunek, Trullen, Bonet, & Saquet, 2003). While explicit knowledge (evidence) can be found in books, journal articles, or other formal learning events, tacit (implicit) knowledge can only be gained through individual experience and collective participation in communities of practice (Bartunek et al., 2003). Within a VCoP tacit knowledge is shared through metaphors, analogies, and stories of practice, a form of knowledge transmission that builds on contextual cues (Bartunek et al., 2003).

One of the major benefits of a VCoP is the ability of a diverse group of health care professionals to communicate and collaborate quickly, at a time and pace that is convenient for them, across institutions and geographical locations ("Designing Virtual Communities for Medical Professionals," 2006; Demiris, 2006; Endslay et al., 2005; McGarr, 2010; Robinson & Cottrell, 2005). Online communication also offers a means to reduce isolation of health practitioners at multiple levels including professional, structural, and social (Barnett, 2012; McGarr, 2010).

The exchange of knowledge within a VCoP leads to the creation of new knowledge and change in practice (Robinson & Cottrell, 2005). A comprehensive review of the literature that examined the impact of communities of practice in health care reported improved outcomes for communities that used technology including (Ranmuthugala et al., 2011):

- Improvement in developing local guidelines and policies
- Improvement in patient assessment
- Increased use of screening tools
- Greater involvement of the patient in decision making
- Reduced frequency of liability claims received by hospitals
- Improved rates of adherence to evidence-based processes indicators

Non-medical literature further supports that communities of practice can result in increased productivity and innovation (Sandars & Heller, 2006).

The literature also provides examples of VCoP that showed no significant improvements, however the authors suggest that the reason for this is the poor design and management of the VCoP (Nazem, 2012).