Literature Review

Communities of practice: A means to support occupational therapists’ continuing professional development. A literature review

Margot Barry,1 Wietske Kuijer-Siebelink,2 Loek Nieuwenhuis3,4 and Nynke Scherpbier-de Haan5

1Department of Occupational Therapy, 2Faculty of Health, 3Faculty of Education, HAN University of Applied Sciences, Nijmegen, 4Wetten-Institute for Research on Learning, Teaching and Technology, Open University and 5Head of Primary Care Specialty Training Department, Radboud University Medical Center, Nijmegen, The Netherlands

Background: This literature review investigates what research reports about the contribution that communities of practice (CoPs) can make in the continuing professional development (CPD) of qualified occupational therapists.

Methods: Academic databases (CINAHL, MEDLINE and ERIC) were searched and articles were included based on pre-determined criteria. Five articles were included in the review.

Results: The CoPs in the reviewed articles provided opportunities for knowledge sharing, knowledge translation, reflection on action and learning through boundary crossing. The presence of professionals with diverse perspectives was an important ingredient that facilitated CPD.

Conclusion: Research into the use of CoPs in occupational therapy is sparse. CoPs could provide a CPD forum for occupational therapists whether online or face to face. Practitioners are encouraged to participate in CoPs. Further research into the use of CoPs is recommended.

KEY WORDS contemporary practice issues, learning, occupational therapy research.

Introduction

Continuing professional development (CPD) was in the past regarded as consisting mainly of formal learning activities such as meetings, lectures and the pursuit of a formal degree. However, recently, the importance of informal learning activities has been increasingly acknowledged in the context of CPD (Driesen, Verbeke, Simoens & Laekeman, 2007). Informal learning activities are very often work-related, social activities that lead to learning in the very context where the knowledge is most likely to be applied. There is much to be gained from this form of situated learning in context (Lave & Wenger, 1991).

One potential form of situated informal learning for occupational therapists is a community of practice (CoP). The effectiveness of CoPs in workplace learning has been established through research for many professional groups, including community policing, coaching psychology, marketing and higher education (Henry & Mackenzie, 2012; Nagy & Burch, 2009; Schwarz-Bechet, Bos-Wierda & Barendsen, 2012; Shams, 2013). CoPs are joint enterprises that are characterised by three elements: a community of people, a domain of interest and shared practice (Wenger, 1991). CoPs might be of interest to occupational therapists who are interested in maintaining and increasing their knowledge and professional competence.

This literature review seeks to explore what published research reports about the use of CoPs to support the professional development of occupational therapists. The review includes CoPs that were conducted in a face-to-face context and those that relied on technology to create an interactive forum. The application of the concepts to professionals in the field of occupational therapy is discussed. The review concludes with recommendation arising from the findings and the subsequent discussion.

Background

The background information describes the nature of professional learning in occupational therapy, the structure and the characteristics of CoPs and the process of knowledge translation within these.
CPD in occupational therapy

Professional learning in the discipline of occupational therapy is most commonly referred to as CPD (World Federation of Occupational Therapists, 2016).

CPD has informally existed since the inception of the profession and is mandatory for occupational therapists in many countries, including Australia (Occupational Therapy Board of Australia, 2012), South Africa (Health Professions Council of South Africa, 2016) and England (Health & Care Professions Council, 2013). Therefore, despite the fact that many occupational therapists engage in CPD voluntarily, it is in many cases not a matter of choice but a matter of state registration and public protection.

CPD encompasses the engagement in a range of learning activities on an ongoing basis (Driesen et al., 2007). Many CPD systems make provision for engagement in both informal and formal learning activities (Association of Occupational Therapists of Ireland, 2013). Cumulatively these learning activities should allow professionals to acquire new knowledge and to translate existing knowledge into practice, a process referred to as knowledge translation (Cramm, White & Krupa, 2013). Knowledge translation in medical and health-care literature primarily describes the process of reviewing and using scientific research to inform practice (Cramm et al., 2013).

Several publications acknowledge the importance of a network or a team in the implementation and adoption of new knowledge into practice (Forsyth, Mann & Kielhofner, 2005; Wimpenny, Forsyth, Jones, Matheson & Colley, 2010). Wilding, Curtin and Whiteford (2012) underscores the importance of the social context of learning during CPD and suggested that CoPs are of interest to occupational therapists and other health professionals engaging in CPD.

It is important to understand the concept of CoPs before their relevance to occupational therapy is reviewed. The three characteristics of CoPs (Wenger & Wenger-Traynor, 2015), namely a domain of interest, a community of people who learn from each other and a shared practice, are relevant in the health-care context not least because health professionals frequently work in teams and collectively the activities they engage in are referred to as ‘practice’.

A CoP is a joint enterprise that is hallmarked by mutual engagement of its members, which binds them together to form a unit or a social entity (Wenger, 1991). Within a CoP questions and issues are shared in order to improve practice through collaborative inquiry (Wenger, 1991). The term ‘community of practice’ was coined by two academics: Jean Lave, a social anthropologist and Etienne Wenger, formerly a teacher and researcher. Lave and Wenger (1991) proposed that learning is not just an individual formal effort with a defined beginning and end, but learning is pervasive in ongoing everyday activity. They called this type of everyday learning: situated learning and stipulated that it is linked to a very specific social context (Lave & Wenger, 1991). Their work draws on the constructivist theories of two prominent academics, namely Lev Vygotsky (1896–1934) and John Dewey (1859–1952), who emphasised the importance of the social context of learning, which is echoed and validated by more recent research (Glassman, 2001).

A proposition of situated learning theory is that the creation of knowledge and meaning can be shaped through situated lived experience, for example, in organisations, educational institutions, associations, international development and the Internet (Lave & Wenger, 1991; Sorensen, Takle & Moser, 2006). Situated learning complements formal education and resonates with the areas of problem-based learning, adult learning and particularly the pedagogy of lifelong learning, which is prominent in the area of health-care CPD (Hung, 2002).

Lave and Wenger (1991) proposed that situated learning can happen within CoPs and that engagement in a learning community leads a practitioner from ‘knowing to knowing, doing and being’. Learning in CoPs therefore relies upon interaction and a social context that contributes to lifelong learning. Their ability to contribute to lifelong learning, make CoPs potentially useful as a learning tool in CPD for occupational therapists. This literature review will elaborate on the existing research into CoPs and their effectiveness in the context of professional learning for qualified occupational therapists. The question this research seeks to answer is:

What does published research report about the contribution that CoPs can make to the CPD of qualified occupational therapists?

Literature review methods

In order to determine whether CoPs are already in use as a professional learning forum in occupational therapy, a literature search was undertaken. Figure 1 below presents a summary of the search method used to conduct this literature search (Moher, Liberati, Tetzlaff, Altman & the PRISMA Group, 2009). The search terms ‘occupational therapy’, ‘community of practice’, ‘network of practice’, ‘continuing professional development’, ‘lifelong learning’ and ‘professional learning’ were searched using the databases CINAHL, MEDLINE and ERIC. Each search term was linked with the search term ‘community of practice’ through the search method ‘AND’ to ensure relevance to the topic. The search yielded 893 articles of which 98 duplicates were excluded. Next, the abstracts were screened against inclusion and exclusion criteria which are as follows: An article was included if it had been published after

© 2016 Occupational Therapy Australia
November 2004 and the article reported research on CoPs for occupational therapy practitioners; the article reported research about multi-disciplinary CoPs in which occupational therapists participated and if the research method was clearly described. Articles were excluded if the article reported research conducted with students, service users, academics or volunteers without the presence of qualified occupational therapy practitioners and if the article reported research conducted in tertiary institutions rather than in the practice setting. Articles were further excluded if they referred to previous research without reporting new findings and if the methodology was not clearly described.

A total of 781 articles were excluded and the 14 remaining articles were read in full. Eleven further exclusions were made based on the fact that the article referred to previous research but did not report new research or the methodology was not clearly described. Two new articles, not previously found through the database searchers, were identified from the reference lists of the read articles and included in this review. This yielded the five articles that were included in the final review.

**Analysis and synthesis of review**

The five selected articles were read, re-read and a table summarising each article was compiled (see Table S1). The summary was made under the following headings: reference, study aim, the CoP aim, the research method used, the CoP structure and situation, the CoP outcome and the research conclusion. Subsequent to this, each article was critically appraised using the Critical Appraisal Skills Program’s Qualitative Checklist (Critical Appraisal Skills Programme, 2013) as a tool for critical appraisal. Subsequent to the review and critique, a thematic analysis (Aveyard, 2014) was undertaken to
synthesize the literature. The results of the research articles were read, coded and categorised, and emerging themes were identified through recurring categories.

Findings

Four themes emerged that make a contribution to answering the research question. Table 1 below presents the themes and the articles in which each theme occurs.

The reviewed research articles focussed on CoPs that were created for definable purposes as can be seen from the ‘CoP aims’ in Table S1. The aim of each CoP is unique and differs from the aims of the other CoPs. Despite the differences in the aims, commonalities can be seen in the contribution which CoPs make to CPD. Professional development in the CoPs occurred through a range of learning mechanisms which are discussed using quotations from the reviewed articles.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Articles in which themes occur</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPD through knowledge acquisition</td>
<td>Roberts (2015)</td>
</tr>
<tr>
<td>CPD through knowledge translation</td>
<td>Roberts (2015)</td>
</tr>
<tr>
<td>CPD through reflection on action</td>
<td>Roberts (2015)</td>
</tr>
<tr>
<td>CPD through boundary crossing</td>
<td>Roberts (2015)</td>
</tr>
</tbody>
</table>

Wimpenny et al. (2010) also reported that their face-to-face CoP meetings were an effective knowledge sharing forum ‘where an honest range of views could be shared’ (p. 511) and went further to describe that ‘the process of knowledge assimilation was complex’ (p. 512). As part of the knowledge assimilation process, participants ‘needed to personalise and integrate theory’ (p. 512) into their existing understanding of theory. Participants did not find this easy but the interaction and discussion in the CoP meetings were reported as helpful in the process of knowledge assimilation.

Roberts (2015) also highlighted the importance of participation in discussion and sharing during CoP meetings as a source of knowledge. ‘Participants consistently identified learning from others as the primary purpose of CoPs’ (p. 300) and that the ‘exchange of information was very beneficial and key to adult learning’ (p. 300).

Hoffmann, Desha and Verrall (2011) studied the effects of participation in an asynchronous online CoP and despite the lack of spontaneous interaction on such a platform, the respondents in this research indicated that convenient access to information was one benefit of CoP participation. Participants valued the ability to ‘share resources and information, pool experiences and discuss ideas with others’ (p. 340). The CoP discussions were made through written contributions by participants and this provided an added benefit of a documented ‘ongoing history of items that were discussed … which could be used when convenient’ (p. 341).

In the research on CoPs, it was evident that knowledge was not only shared and acquired but also applied. This lead to the second learning mechanism.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Articles in which themes occur</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPD through knowledge translation</td>
<td>Roberts (2015)</td>
</tr>
<tr>
<td>CPD through reflection on action</td>
<td>Roberts (2015)</td>
</tr>
<tr>
<td>CPD through boundary crossing</td>
<td>Roberts (2015)</td>
</tr>
</tbody>
</table>

The second theme that arose is ‘professional development through knowledge translation’.

Four of the five reviewed articles indicate that their CoPs acted as a catalyst and support for knowledge
The interaction between participants at CoP meetings was a key to the process of knowledge translation. Wilding et al. (2012) reported that the discussion within their CoP ‘enabled participants to apply complex and abstract theoretical issues to real-life practice situations’ and also to ‘take action … through being inspired by the stories and examples of each other’ (p. 315). Similarly, Roberts (2015) reported that there was a ‘wealth of resource information shared for practice applications’, including ‘explicit explanation of strategy at CoPs [that] was easier to transfer to practice rather than general recommendations’ (p. 302). However, Roberts (2015) added that not all participants found the process of knowledge translation easy, one participant reported that ‘it’s hard to change what you do’ (p. 302).

In addition to the ability to discuss strategies verbally, Wimpenny et al. (2010) reported the process of ‘observing others engage led to a personal decision to act’ (p. 511) and therefore acted as a catalyst to knowledge translation. This appeared to be similar in Kilbride et al.’s (2011) research where participants also had the opportunity to observe each other’s practice in addition to discussions at CoP meetings. For them, the collaboration at the CoP meetings led to more co-working and ‘learning from working alongside each other’, whereby ‘staff took advantage of everyday activities to enhance informal development of stroke knowledge and skill’ (Kilbride et al., 2011, p. 93). The ability to discuss practice and additionally, the ability to practice together led to ongoing professional development.

Wimpenny et al. (2010) found that successfully ‘implementing theory into practice became an ongoing self-reinforcing process’ (p. 514). This cyclical process introduces the third learning mechanism related to CoP participation in which learning begins with therapists’ actions which are subsequently theorised.

**Theme 3: Professional development through reflection on action**

The third theme, ‘learning through reflection on action’, is present in the findings of four of the five reviewed articles (Kilbride et al., 2011; Roberts, 2015; Wilding et al., 2012; Wimpenny et al., 2010). The main facilitators for reflection appeared to be the dedicated time and space for reflection at CoP meetings and also the collaboration and interaction with others during meetings.

Roberts (2015) reported that having a ‘sanctioned place to reflect was identified by participants as significant’ and ‘reflection at CoPs contributed to growth in understanding’ (p. 301). Similarly, Kilbride et al. (2011) found that ‘meetings provided space for reflection on action [and this was] a key aspect of practice based learning’ (p. 95). Wilding et al. (2012) reported that the interaction at CoP meetings allowed participants to ‘take time to think more deeply about practice’ by ‘being reflective about practice’ (p. 315).

Participants in the research of Wimpenny et al. (2010) reported that it was not only the time and space offered for reflection during the CoP meetings that facilitated professional development, but also ‘the questioning of participants’ therapeutic reasoning [which] encouraged a critical approach to theory and practice’. Participants were ‘challenged to reflect [and through] cycles of reflection and action … therapists forged a new kind of practice’ (p. 513). The collaborative element in the reflective process during the CoP was reported as a key to the learning of participants.

The theme of ‘learning through reflection on action’ was not evident in the research on the online asynchronous CoP conducted by (Hoffmann et al., 2011). While the CoP participants enjoyed the convenience of logging on from any location at any time, they were not necessarily online at the same time which limited the level of spontaneous interaction. Participants reported that ‘CoP information was limited and often out of date’ (Hoffmann et al., 2011, p. 341). There was no evidence of collaborative reflection on the current practice issues.

**Theme 4: Professional development through boundary crossing**

In all five articles there is evidence that CoPs provided opportunities for learning through boundary crossing. The concept of boundary crossing in professional education refers to the phenomenon where boundaries can hold learning potential: Learners participate and collaborate across a diversity of sites, both within and across institutions and learn from the diversity, disjuncture and discontinuity of culture, perspective and practice they encounter (Akkerman & Bakker, 2011).

The boundaries that contributed to learning within the CoPs were boundaries between professional groups (Kilbride et al., 2011; Roberts, 2015), between occupational therapists from different geographic and professional settings (Hoffmann et al., 2011), between management and clinicians (Kilbride et al., 2011), between academics and practitioners (Wilding et al., 2012; Wimpenny et al., 2010) and boundaries between the discourse of practice in the CoP meetings and real practice in everyday work (Wimpenny et al., 2010).

Roberts (2015) found that professionals from different disciplines approach the same phenomenon or client in different ways thus creating a discontinuity in action and therefore boundaries that hold learning potential. The discussion in ‘multidisciplinary groups . . . increased exposure to diverse perspectives’ (p. 299) and challenged therapists to reflect critically on their own professional view.

The CoPs in the research of Hoffmann et al. (2011) did not include professionals from other disciplines.
However, they did find that professionals from within the same discipline shared perspectives and practice examples that were either new or different from known ways of working and therefore stimulated learning. The participants reported that they were able to ‘explore topics beyond their current area of practice or interest and develop knowledge of broader occupational therapy practice’ (p. 340).

Boundaries that hold learning potential could also be identified between management and practitioners. Learning occurred during the process of aligning the diverse perspectives on the same practice. Kilbride et al. (2011) reported that ‘combining senior management and stroke unit clinicians’ (p. 93) within their CoP allowed clinicians to gain a different view of their own practice, namely the view management holds. Discussion and collaboration during CoPs ‘reduced the perceived distance between management and clinicians and helped align clinical practice with political priorities’ (p. 95).

The participants in research of Wilding et al. (2012) and Wimpenny et al. (2010) identified learning potential through the interaction between practitioners and academics. Practitioners ‘appreciated interaction and collaboration they had with the academic researchers’ as this ‘encouraged the participants to think in different and novel ways’ (Wilding et al., 2012, p. 315). Wimpenny et al. (2010) reported that the academics ‘enabled a more detached perspective from which to observe and reflect upon’ (p. 510).

Finally, Wimpenny et al. (2010, p. 510) described the boundary between the discourse of practice and practice itself by describing the disjuncture between the manner in which practice was discussed during the CoP meetings and actual practice. This ‘disruption served as a catalyst’ for improvement and learning.

Discussion

The findings indicate that the CoPs in the reviewed research have contributed to the CPD of participants through various learning mechanisms which include knowledge sharing, knowledge translation, reflection on action and learning through boundary crossing. The strength of these findings will be discussed by examining research methods used. Subsequently, the findings are discussed under three headings that reflect the characteristics of a CoP: community membership, domain of interest and shared practice.

Discussion of methods

While the findings are promising, some limitations of this literature research should be taken into account. It is important to note that mainly qualitative research methods were used within the small number (n = 5) of publications reviewed. The methods used included action research (Kilbride et al., 2011; Wilding et al., 2012; Wimpenny et al., 2010), mixed-method research combining questionnaires with individual interviews (Roberts, 2015) or with focus groups (Hoffmann et al., 2011). The methods and the sample sizes make the findings applicable to the situations in which they were generated. Action research differs from the other forms of research mentioned because the conclusions drawn in action research are drawn jointly between the researcher and the participants, whereas in the other methodologies the conclusions are drawn solely by the researcher (Koch & Kralik, 2006). However, despite the differences, all the reviewed studies found that CoPs were positive in their effect on the professional development of their participants.

In some of the studies, the researchers participated in the CoPs (Kilbride et al., 2011; Wimpenny et al., 2010) and they contributed to professional development by introducing their perspective to the discussion but their presence may have driven the process and encouraged participation to a higher degree than would have been the case without their presence. It would thus be worth considering whether CoPs in which the researchers do not participate, have equally many benefits and equally few drawbacks. This is not possible to ascertain from this review because of the limited number of studies reviewed and the diverse nature of these.

Community membership

The key message from the reviewed research appears to be that CoPs in various forms, whether online, by teleconference or in a face-to-face setting hold CPD benefits for occupational therapists through the interaction and collaboration they facilitate. However, it is notable that the label ‘community of practice’ was applied to vastly different learning situations, where community membership was automatically defined through group participation. The researchers’ interpretation of a CoP was assumed and the research findings based on their understanding of CoPs. This is not uncommon in research on CoPs (Cassidy, 2011) and it is not surprising given that community membership is complex, nuanced and not easily defined (Jonkeren & Huysman, 2006).

The CoPs reviewed above not only differ from each other, they also differ vastly from the original concept of CoP described by Wenger (1991). All the CoPs above could be categorised as a tool for learning, where people intentionally sought each other’s company and labelled themselves a community because their primary objective was to learn together. In contrast, Wenger (1991) described a CoP that consisted of people who became a community that learns together because they work together. They did not seek each other out nor interact with the intention of becoming a learning community and community membership was not automatically defined (Cox, 2005). Researchers may therefore need to make a distinction between purposively
assembled CoPs such as the ones reviewed, and spontaneously grown CoPs such as the original concept coined by Wenger (1991). While both appear to contribute to professional learning, it is clear that each type of CoP has a different origin and the manner which they are effective might differ. Wasko, Teigland and Faraj (2009) reported that for this reason several researchers have opted not to use the term CoP and treated it with caution because of the limited clarity on it. The terms network of practice, network of improvement or network of design have instead been used depending on the specific purpose of the created group (Brouwer, Brekelmans, Nieuwenhuis & Simons, 2012).

Labelling a group of collaborative learners correctly might be a secondary consideration for practitioners and managers, as it appears clear from this review that the social context of learning, no matter which form it takes, has a powerful effect on professional development. However, more clarity on the origin and context of CoP might assist managers and practitioner in identifying existing CoPs or establishing CoPs in which to progress their CPD.

**Domain of interest**

Identifying the purpose of a CoP prior to its establishment negates the necessity for identification of a domain of interest as it immediately characterises a group’s knowledge domain. In the case of the reviewed studies, the predetermined domain also largely seems to have negated the necessity for a more in-depth analysis of the network of people involved in the CoPs. Certainly, the presence of academics, managers and practitioners at the reviewed CoPs provided diverse perspectives on the shared domain of interest and contributed to learning through boundary crossing. However, the fact that no network analysis was conducted means that the key actors were identified but their connectedness and the flow of information were not captured (Knoke & Yang, 2008). It is not clear how power relationships such as those between manager and practitioner were managed within the CoP and this could make it difficult for managers, practitioners and academics alike to reproduce a forum that was identified as an effective CoP. It is also not clear whether academics and managers were also able to progress their CPD and learnt from their interaction with practitioners. Further research into the design criteria and the flow of information within a CoP may be necessary.

**Shared practice and online CoPs**

In the case of this literature review, the online CoP (Hoffmann et al., 2011) held fewer benefits for CPD than that of the face-to-face CoPs. Notably, learning through knowledge translation and reflection on action were not evident in the online CoP. Whether the effect of a CoP in the physical setting is higher than that of CoPs in the virtual setting is not currently known and potentially difficult to measure, but there are known disadvantages of an asynchronous online forum. For example, asynchronous communication online reduces the possibility of spontaneous discussion and removes the nuances of face-to-face discussion. The use of technology requires a certain amount of user skill and willingness to experiment with innovation in order to be effective (Selwyn, 2012). More importantly though is the issue of shared practice: Occupational therapists, who work in close geographic proximity such as the same hospital or the same community, are able to learn through shared practice (Kilbride et al., 2011; Wimpenny et al., 2010). Examples of shared practice include co-treatment of clients, supervised practice, ward rounds and team meetings. An online platform does not facilitate this level of shared practice. Online platforms allow practitioners to engage in the discourse of practice, but do not allow them to practice together in the same manner that physical proximity does (Cassidy, 2011). In essence, technology changes the landscape of group-based learning to a large degree by steering it away from some activities that could be considered signature pedagogy in health care (Shulman, 2005). It could be argued that the power of the online forum to assist in the development of expertise in the context of health care is questionable given that it is important to attain not only practice knowledge but also practice skill in the development of an expert (Geerligs, 2010).

On the other hand, online platforms offer new opportunities that the physical setting does not hold. CoPs conducted online afford participants’ the ability to communicate while being geographically far removed from each other. Participants are not bound to a particular space and time in order to access the information and conversations available as part of the CoP. Online CoPs can assist in mitigating geographic and professional isolation of health-care professionals (Berland, 2003) in a manner that CoPs conducted in real time through physical presence at a location do not offer. Further research into the use of online CoPs in occupational therapy should take into account the opportunities they offers for knowledge sharing but should also consider the limitations they have in facilitating knowledge generation in and through practice.

**Conclusion**

Research on CoPs for occupational therapists is sparse, but the research that does exist indicates that CoPs have the potential to make a contribution to CPD for occupational therapists. The social context of learning is of particular benefit for occupational therapists’ CPD and appears to facilitate knowledge acquisition, knowledge translation and knowledge generation through practice. Further research is recommended into the use of CoPs.
for the purpose of occupational therapists’ CPD. This includes establishing design principles for effective CoPs and further research into the effectiveness of online CoPs.

References


Wimpenny, K., Forsyth, K., Jones, C., Matheson, L. & Colley, J. (2010). Implementing the model of human occupation across a mental health occupational therapy service: Communities of


### Supporting Information

Additional Supporting Information may be found in the online version of this article:

**Table S1.** Overview of the results