Chapter 2
The Role of Higher Education in Facilitating Communities of Practice to Support Health Professionals Practice

Claire Palermo

Abstract The increasing complexity of health issues and health care delivery calls for strategies to develop the practice of health professionals. Communities of practice support the development of capabilities of its members through sharing practical experience, creating solutions towards a common goal and the development of new ideas for practice. They offer a unique approach in healthcare above other professional development activities due to their ability to situate learning within experiences and promote reflective practice. This chapter tells the stories of two communities of practice led by the higher educator sector designed for nutritionists wanting to improve the population's health through strategies that create environments to make healthy food choices easy. The case examples show the potential of communities of practice to develop participant's perceived competence and reduce their sense of professional isolation. Trust among a small group of likeminded colleagues with similar practice roles, together with experiential learning and effective facilitation, were essential for success. Having a facilitator as a member of the academic community was perceived to be valuable due to their ability to be independent, promote reflective practice, support learning and evaluate the impact. There remains a need to develop more robust methods to evaluate the impact of communities of practice in the health sector.

Keywords Competence · Food supply · Health professional · Nutrition · Population prevention · Practice

2.1 Introduction

As the health sector is challenged to improve the safety and effectiveness of health care in an ever increasing complex health system and burden of disability and disease, strategies to support and enhance the practice of health care professionals

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and teams are pursued. Communities of practice have been proposed to support and improve the practice of health professionals (Ranmuthugala et al. 2011). As one of a suite of available professional development activities, they provide a potential mechanism to support learning through experience and the development of new ideas and improved practice. In contrast to other forms of professional development such as conferences, workshops and training, they provide focussed and active learning by concentrating on the development needs of participants and promoting reflective practice. The collective learning, situated in practical work experiences together with regular and timely interaction are the key features of communities of practice that distinguish from other learning designs (Wenger et al. 2002).

Evidence based reviews of the use and effectiveness of communities of practice in the health sector have concluded that communities of practice are used to share knowledge and improve practice however their effectiveness remains unclear (Ranmuthugala et al. 2011; Li et al. 2009b). Measuring the effectiveness of communities of practice has been challenging, with the majority of evaluations focussed on perceived impacts from qualitative accounts or study designs that prohibit isolating the effect of the community of practice from other processes (Ranmuthugala et al. 2011).

The origins of communities of practice lie within social learning theory and describe an unintended, informal learning process that occurs through experience within a group of people with a common agenda (Wenger 1991, 2000). However, the concept has been artificially constructed to bring together professionals from within and across organisations for the purpose of practice improvement (Ranmuthugala et al. 2011). Little is known about the impact of 'arranged' communities of practice and if they have the similar impact on social learning as those informally bound together.

The role of a leader and/or facilitator in a community of practice and its success has been acknowledged (Li et al. 2009a; McDonald 2014; Wenger et al. 2002). The facilitator is usually well respected and connected within the respective community. They play a role in the administration of the community of practice and may facilitate by focussing discussions and supporting the development of individual members and maintaining relationships. They are not necessarily an expert but rather a leader in discussions that create joint solutions (Wenger et al. 2002). Traditionally facilitators or leaders come from within the organisation or community of practice rather than external to it (Li et al. 2009b). Less is known about the role of a facilitator independent of the organisation or organisation-type of the community who has been purposefully positioned to take on this role. There is a dearth of evidence on the role of the academic community supporting practice through communities of practice.

This chapter will draw on two case examples of how a university based academic facilitator supported nutrition practitioners from across organisations for practice improvement (Palermo et al. 2010; Holden et al. 2015). The chapter will tell the story of these communities of practice. An analysis of the key findings across the two case examples will be examined to specifically explore the role of a university academic as the facilitator of the community of practice as well as the

tools that promoted success based on evaluation of the case examples. The chapter aims to highlight the important role of higher education in supporting professionals in practice and discuss recommendations for evaluation.

2.2 Supporting Nutrition Practice

Improving the population's diet is potentially the most important contributor to improving health outcomes (National Health and Medical Research Council 2011). The nutrition workforce is unprepared to tackle seemingly intractable population nutrition priorities (Hughes 2003c). The nutrition workforce equipped with the task of prevention of nutrition related disease and maintenance of nutritional health of populations has been reported to lack the capacity to manage priority issues (Hughes 2003c).

In response to this, a university instigated initiative that aimed to build the capacity of the public health nutrition workforce, in particular develop competencies for working effectively in prevention. The university supported an academic member of staff, with existing links to public health nutrition practice through a work-integrated learning role, to commence a support model for such practitioners. The first initiative was set up as a group mentoring circle, based on the evidence that mentors had provided a key role in developing the competence of advanced level public health nutritionists (Hughes 2003b; Palermo and McCall 2008). Thirty-two nutritionists participated for 7 months and 12 of the group continued for an additional 12 months, naming themselves a community of practice due to their function as avenue for knowledge exchange and situated learning. Four years after the completion of the mentoring circle, one of the initial group participants suggested that this approach would be of benefit for nutritionists working with remote stores. As such a community of practice was set up by the university for nutritionists with a mandate to work with remote Indigenous stores across Australia. The two case examples are described in detail below. In both cases, the university supported the groups functioning, including, but not limited to, electronic communication. tele- or video-conference and web-based resource sharing. The academic facilitator was supported within the existing academic appointment time to administer and facilitate the group.

Case Study 1. Mentoring learning circle for novice public health nutritionists (Palermo 2010).

The Victorian public health nutrition workforce is particularly limited in its capacity to address population nutrition issues. The small size, mostly part-time or short-term tenured positions, priority for patient/client care services over community or population based strategies and self-reported lack of skills contributes to this (Hughes and Woods 2003). A mentoring learning circle, later called a community of practice was initiated for Victorian based public health nutritionists wanting to improve and reorient their work practice towards population based prevention.

Nutritionists working in Victoria with a job description or mandate to work in primary prevention were invited to participate. Participants with job roles that only involved patient/client care services and those who could not commit to a 6-month mentoring program were excluded. Participants were given permission from their organisation to participate and received no funding for involvement. Thirty-two recently graduated nutritionists participated in one of three groups that met formally for 7-months. Twelve of the original participants continued the formalised community for an additional 12 months. The impact of the community on the perceived competence and capacity for prevention was evaluated using a competence self-rating form pre and post invention together with in-depth interviews.

Case Study 2. A community of practice for public health nutritionists who work with remote retail stores (Holden et al. 2015).

The nutrition workforce who works specifically with remote Australian Indigenous community stores to improve the availability and consumption of nutritious food are challenged by their work role (Gregoriou and Leonard 2010). In the absence of a strong evidence base about what works to support their practice and based on the experience of one of the participants from case study 1, a community of practice was instigated with 12 nutritionists with a specific mandate to work with remote Indigenous community stores. The community of practice was limited to those working with remote Indigenous communities in a job role with a mandate to work in primary prevention with community stores. Nutritionists not working with stores specifically in their remote community work were excluded from participating. The group met formally for 7-months with a focus on developing their skills and abilities to influence the food supply and improve the consumption of nutritious food. Eight of the original twelve members continued with the community for an additional 18 months. The impact of the community on the perceived most significant change to their practice, as a result of participating in the community was evaluated using in-depth interviews with Most Significant Change technique (Davis and Dart 2005). An Australian National Preventive Health Agency grant supported the remote store nutritionist community of practice. The funding covered the bringing together the nutritionists from across Australia to Darwin for the initial face-to-face session and supported a research assistant salary for the collection of evaluation data.

The two case examples described in this chapter provide examples of constructed communities of practice with nutrition professionals working in community based settings to improve population health. The aims were to develop the skills, confidence and competence of participants to promote and improve the health of the communities they work with through initiatives and organised action to create environments that support easy and healthy food choices. While the focus of the two case studies differed, they both called for volunteer participation in a learning circle or community of practice from within existing professional networks. Participants were asked for a minimum of 6 months commitment to develop their competence in working in public health nutrition. They were classified as communities of practice based on the *domain* of interest (a commitment to primary

prevention through nutrition), the *community* whereby they developed relationships, participated in group discussions, supported one another's practice through sharing information and the *practice* of sharing experiences and approaches to addressing common problems seen in practice through continued collaboration (Wenger 2000).

The groups were initiated with a face-to-face workshop to meet fellow participants and develop guidelines on how the group would function. In addition time was allocated for participant's to identify learning needs and develop plans for their own development. Both groups met formally every 6 weeks for a period of 7-months utilising face-to-face and electronic (video or teleconference) communication for participants located in rural and remote areas. During the sessions the academic leader verbally supported the participants to reflect on their work and key learning through their own experiences and joint problem solving around issues that participant's brought to discussions. In addition, in between sessions, participants were encouraged to discuss issues and utilise email and phone contact for this purpose. The groups were encouraged to contact each other and the facilitator outside of the structured sessions for support.

An evaluation framework was developed to measure the impact of the communities of practice. In each case study the evaluation aimed to explore the experience of participants, their satisfaction and the perceived impact of the community of practice on their competence and work practice (WK Kellogg Foundation 2004). The evaluation framework utilised qualitative approaches the explore the experiences and impact, including in-depth interviews and focus group discussions based on the most significant change technique (described below). In-depth interviews were used to allow the participants to speak freely about their experience with an independent interviewer. Competency self-assessment was also used to measure self-perceived change in skills and abilities (Palermo et al. 2010; Holden et al. 2015). The following sections detail summaries from these evaluations particularly in relation to the functioning of the groups, the facilitation role and the impact and outcomes on the participants practice.

2.3 Practical Processes, Protocols and Tools that Contributed to CoP Success

In both case examples participants described the importance of a small group setting to support their learning and the value of learning from peers. Sharing stories and challenges from their practice and having multiple peers to provide thoughts on potential solutions drawing on their own experiences increased confidence to undertake their roles. The size of the group 8–12 was reported to be ideal as smaller groups allowed for all members to contribute to discussions and learn. While there was generally strong collegiality among the groups there were a couple of challenging behaviors in the groups that participants did not value. These included not

trusting the group and therefore not sharing stories, dominating discussions, raising issues not relevant to the focus of the community. The facilitator managed these issues by discussing with individual participants outside of the group setting. Having participants with similar levels of practice experience was also reported to be important in the evaluation of case study 1. The groups also valued structuring learning plans around a competencies framework which assisted identification of gaps in competence and allowed self-reflection of perceived development over time. Facilitating access to written resources and evidence through a web-based repository, was highly valued (Palermo 2010; Palermo et al. 2010, 2011; Holden et al. 2015). These findings are congruent with existing evidence of communities of practice and the value of situated learning and the boundary spanning that occurs (Wenger 2000).

Creating a safe and supporting environment for learning was instrumental to success. Trust was a vital component and this was established through sharing work experience and interests. Participants had to feel safe to expose their practice and challenges they faced to the group for the benefit of learning. The initial session or 'potential' stage of the communities of practice where rules for operation were explored and developed by the community, assisted in the establishment of trust. In addition allowing members to develop friendships within the group assisted. Participants also shared that in their work they often felt alone or isolated and that the community of practice stopped them from feeling this way (Holden et al. 2015; Palermo et al. 2010, 2011).

Some participants described the challenge of gaining support from managers to participate in the community of practice as it was not seen as a valuable professional development. The collective development, commitment, focus and expertise were the point of difference to other professional development opportunities. There is need to encourage communities of practice as a workforce development strategy within health system (Holden et al. 2015; Palermo et al. 2010, 2011).

2.4 Leadership Role

In the two cases, the university academic took the role in both administrator and facilitator for the groups. From an administrative point of view, this involved recruitment and selection of participants (based on criteria described in Box 2.1) and the organisation of group learning sessions to occur (e.g. room booking, videoconference, and invitations). As a facilitator the university played a role in facilitating and leading the group discussions. The organisation and skills of the facilitator were instrumental for success.

The facilitator used the principles of mentoring to guide their practice and behaviour when interacting with participants. In this case the partnership between facilitator and participants was defined as "a deliberate yet voluntary, non-judgmental relationship that provides support for the purposes of professional and personal growth and development for those in the relationship and development

of the profession as a whole" (Palermo 2010). Mentoring was used as the conceptual framework to guide the nature of the partnership based on evidence of the role of mentors in the development of expertise of nutritionists working in a similar field (Palermo and McCall 2008; Hughes 2003b).

During the initial face-to-face session the facilitator focussed on the aims of the group learning and set rules for how the group would operate effectively. Participants were asked to document key outcomes or learning they hoped to achieve from participation. A competency standards framework was used to guide participants learning needs assessments and plans (Hughes 2003a). The 6-weekly sessions were used to support participant's reflection on their work and learning that had occurred through experiences and documenting progress towards achievement of learning plans. Challenges and stories were shared and group participants contributed from their experiences. The facilitator used targeted questions based on reflective practice (Johns 2004) and appreciative inquiry (Cooperrider et al. 2003) to promote deeper reflection of participants and critical analysis of their work and learning.

In both case examples the role and qualities of the facilitator were evaluated as essential to success. Key attributes described by participants in evaluation of the groups included having knowledge, experience in and passion for the practice area, being approachable and available and facilitating trust among participants. The ability of the facilitator to promote critical reflection on practice and provide constructive feedback was also highly valued. Being sincere, open and solution focussed was perceived to be essential (Palermo et al. 2011; Holden et al. 2015). Case example 1 participants suggested that the facilitator should have teaching and learning as well as public health nutrition skills and experience and a recognised role in supporting the workforce (Palermo 2010). Having the facilitator independent of the organisations in which the participants worked was also reported to have established trust.

Both case examples commenced with a 6 weekly catch up for a period of 7-months, but both continued beyond this period for those who wanted continued support. Although not formally assessed, facilitator reflections indicate that while the stages of potential, coalescing, and maturing were realised for the 7 month period, the stages of stewardship and transformation only occurred for the groups continuing beyond this period. Many of the relationships established as part of the community of practice still exist today, although these have not been formally measured.

Having a facilitator with relevant experience in the practice context of participants together with skills in learning and teaching and a passion for development of the emerging workforce were found to be fundamental ingredients to success. Building the communities of practice within a research agenda justified the academic involvement as the evaluation framework supported research outputs in this regard. The communities of practice facilitated partnerships between the university and each organisation in which the participants worked for and connected the academic facilitator to current practice, ensuring teaching in this area and work-integrated learning experiences were relevant and current.

2.5 Impact and Outcomes

Figure 2.1 depicts the key influences on the success of the community of practice, developed as a synthesis of data from in-depth interviews with participants from both case examples (Palermo et al. 2010; Holden et al. 2015).

Assessing the impact of the communities of practice on the practice of participants was more challenging. Competency standards were used to benchmark participants self-reported level of competence across multiple competency statements. This proved useful in case example 1 which showed that overall participants reported an increase self-assessed public health nutrition competence from mean score, across 25 competency standards, of 3–3.4 out of 5 ($p < 0.05$). All competency standards showed a significant improvement except for three standards. When coupled with in-depth interview data this could be explained by high level of perceived competence in these three areas at the commencement of the community of practice (Palermo et al. 2010).

In case example 2, the most significant change technique (Davis and Dart 2005) was used to report on the impact of the community of practice. The most significant change technique involves the generation of participant stories of change to their

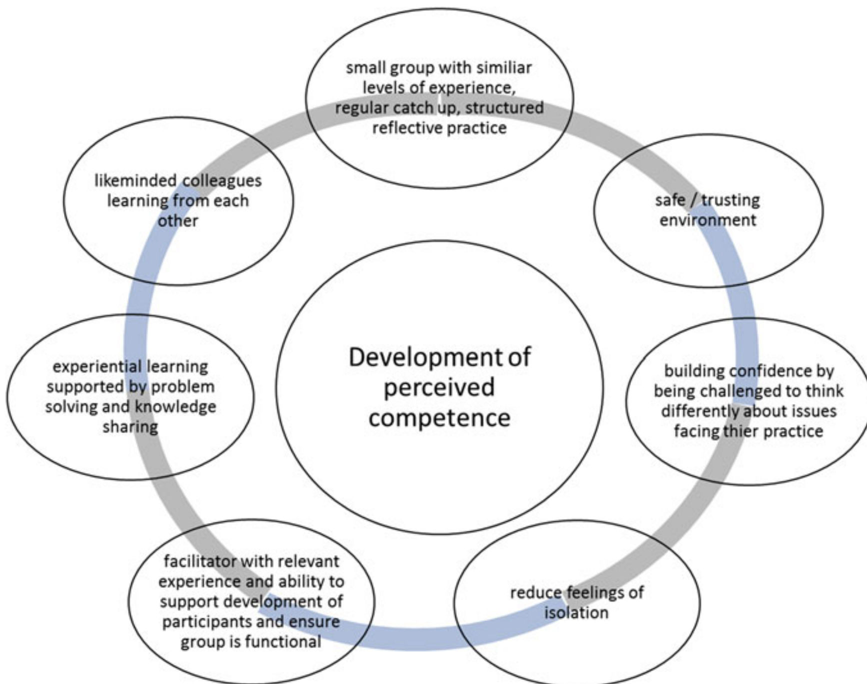

Fig. 2.1 Ingredients for success revealed to have a potential impact on the competence of participants from two case examples

practice with a process of prioritising the identified themes through group discussion (Davis and Dart 2005). Through consensus development, participants decided that the main change to their practice as a result of the community of practice was accomplishment of new knowledge, tools and approaches to their work in particular the use of advocacy and community development approaches and validation for their future career in improving the food supply (Holden et al. 2015).

While considering the limitation of self-assessment of competence and lack of a control group to isolate the effects of the community of practice, it appears that these communities of practice were effective in developing the self-perceived knowledge, skills and attitudes of their participants. There remains the need to develop more successful and robust strategies to measure impact of communities of practice involving the prevention workforce on the communities they serve.

2.6 Conclusion

The need to develop the health workforce to be better able to address the complexity of population health issues is paramount. These two communities of practice provide great hope that 'arranged' communities of practice that have a shared goal, trust, joint decision making and effective facilitation can contribute to the development of the health workforce. Academics should consider their role in facilitating communities of practice outside the university environment to support the development of partnerships and connect them to practice. Embedding research and evaluation into the design of communities of practice justifies academic involvement. There is a need to establish more robust techniques to evaluate the impact of communities of practice on the workforce and also the communities whose health they are working to improve.

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References

Cooperrider, D., Whitney, D., & Stavros, J. (2003). *Appreciative inquiry handbook*. Bedford Heights, Lakeshore Publishers.

Davis, R., & Dart, J. (2005). *The 'Most Significant Change' (MSC) technique*. London: CARE International.

Gregoriou, A., & Leonard, D. (2010). *RIST evaluation of the remote indigenous stores and takeaways resources in Queensland and the Anangu Pitjantjatjara Yankunytjatjara lands of South Australia*. Cairns, Queensland Health.

Holden, S., Ferguson, M., Brimblecombe, J., & Palermo, C. (2015). Can a community of practice equip public health nutritionists to work with remote retail to improve the food supply? *Rural and Remote Health.* Retrieved June 14, 2015.

Hughes, R. (2003a). Competencies for effective public health nutrition practice: A developing consensus. *Public Health Nutrition, 7*(5), 683–693.

Hughes, R. (2003b). Competency development in public health nutrition: Reflections of advanced level practitioners in Australia. *Nutrition and Dietetics, 60*(3), 205–211.

Hughes, R. (2003c). Competency development needs of the Australian public health nutrition workforce. *Public Health Nutrition, 6*(8), 839–847.

Hughes, R., & Woods, J. (2003). *A needs assessment for public health nutrition workforce development in Victoria. Victorian public health nutrition workfroce development initiative*. Melbourne: Monash University.

Johns, C. (2004). *Becoming a reflective practitioner* (2nd ed.). Carlton, Blackwell Publishing Ltd.

Li, L., Grimshaw, J., Nielsen, C., Judd, M., Coyte, P., & Graham, I. (2009a). Evolution of Wenger's concept of community of practice. *Implementation Science, 4*(11), 8. doi:10.1186/1748-5908-4-11

Li, L., Grimshaw, J., Nielsen, C., Judd, M., Coyte, P., & Graham, I. (2009b). Use of communities of practice in business and health care sectors: A systematic review. *Implementation Science,* doi:10.1186/1748-5908-4-27

McDonald, J. (2014). *Community, domain, practice: Facilitator catch cry for revitalising learning and teaching through communities of practice* (Vol. 2012 ALTC Fellowship). Sydney: Office for Learning and Teaching, Department of Education.

National Health and Medical Research Council. (2011). *A review of the evidence to address targeted questions to inform the revision of the Australian Dietary Guidelines*. Canberra: NHMRC (National Health and Medical Research Council) Commonwealth of Australia.

Palermo, C. (2010). *Evaluation of a mentoring intervention for public health nutrition workforce development*. PhD thesis. Clayton: Monash University.

Palermo, C., & McCall, L. (2008). The role of mentoring in public health nutrition workforce development. Perspectives of advanced-level practioners. *Public Health Nutrition, 11*(8), 801–806.

Palermo, C., Hughes, R., & McCall, L. (2010). An evaluation of a public health nutrition workforce development intervention for the nutrition and dietetics workforce. *Journal of Human Nutrition & Dietetics, 23*(3), 244–253.

Palermo, C., Hughes, R., & McCall, L. (2011). A qualitative evaluation of an Australian public health nutrition workforce development intervention involving mentoring circles. *Public Health Nutrition, 14*(8), 1458–1465.

Ranmuthugala, G., Plumb, J., Cunningham, F. C., Georgiou, A., Westbrook, J. I., & Braithwaite, J. (2011). How and why are communities of pracitce established in the healthcare sector? A systematic review of the literature. *BMC Health Services Research*, *11*(1), 1.

Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Wenger, E. (2000). Communities of practice and social learning systems. *Organization, 7*(2), 225–246.

Wenger, E., McDermott, R., & Snyder, W. (2002). *Cultivating communities of practice. A guide to making knowledge*. Boston, Harvard Business School Press.

WK Kellogg Foundation. (2004). *WK Kellogg foundation evaluation handbook*. Battle Creek, WK Kellogg Foundation.

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