



LEARNING BRIEF

Communities of Practice in support of training sessions

Communities of Practice (CoPs) hold much learning potential and are especially relevant for Maternity Foundation initiatives as an integrated component of remotely delivered training. This brief reflects on Maternity Foundation's experiences with establishing and running CoPs in past projects and discusses how we can improve the CoPs based on insights from other organisations' experiences and the broader literature.

Adult learners are characterised by being self-directed and actively involved in their learning process. They utilise their experience and knowledge to learn, are goal-oriented, and their motivation to learn is closely linked with the relevancy of the "lesson" to their work. Their goals and the "lessons" must have practical relevance for them to be engaged in the learning process (Knowles, 1980). Communities of Practice offer an opportunity for adults to learn through their engagement with peers. It enables the adult learner to draw on and share their experience, ask questions, and co-create collective knowledge. In the context of healthcare workers, establishing and reinforcing their health professional roles via CoPs could be motivating enough to encourage the engagement required for learning (Merriam & Bierema, 2013). Unlocking engagement through communities of practice can support Maternity Foundation's training initiatives.

Communities of Practice

Wenger (2006) has described CoPs as "*groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly*". Intentionally setting up communities of practice has been used as a strategy to share knowledge and support the transition from knowledge to practice in the healthcare sector. Communities of practice can be particularly relevant in sectors where new knowledge is regularly produced and needs to be put into action by a large group of workers, such as updated clinical guidelines.

According to Wenger¹ the main characteristics of a community of practice are:

1. A **shared domain of interest** among community members who are committed to the domain and share a set of domain competences.
2. A **community** where members engage and discuss and carry out activities. Relationship building within the community allows members to learn from each other and is critical for the CoP. A group of midwives do not constitute a CoP unless they interact and learn from each other.
3. **Practice**: Members of a CoP are practitioners whose practices are shaped by shared resources, experiences and tools used to address recurring problems.

Communities of Practice across sectors are diverse, and there is no recipe for the perfect CoP. Some CoPs are self-organised and informal, whereas others are formal and neatly managed. Experts in social learning find that having a *core group* who are highly engaged and passionate about the CoP domain is essential for nurturing and growing the community. A systematic review of the literature on CoPs in the healthcare sector finds that CoPs have been more increasingly used to improve clinical practice and implement guidelines as opposed to enhancing knowledge and information sharing (Ranmuthugala et al., 2011). Still, the question of how to create effective CoPs remains. To address this question researchers developed and tested a framework for CoP development (Jørgensen et al., 2019). They found four themes to be particularly relevant for the successful CoP: voluntary participation, identifying a coordinator, allocation of space and time for undisturbed involvement, and identifying practices to be improved/changed by the CoP.

The global utilisation of online platforms such as smartphone application-based messaging services such as WhatsApp, Telegram, and Facebook has facilitated knowledge sharing between healthcare workers and provided access to continued professional development opportunities picked up during the COVID-19 pandemic. Online communities of practice (OCoPs) offer promising prospects for supporting healthcare workers professionally and emotionally in remote areas during challenging times. At the same time, there has been a global trend toward supplying online training opportunities and access to self-directed learning.

Online communities of practice

Online communities of practice have become popular in the past decade. The evidence on the advantages of effective OCoPs and their associated facilitators and hinderers is growing.

According to Sherer et al. (2003), an OCoP has three main characteristics:

1. An individual's involvement requires some knowledge of the domain area.
2. Members must interact and learn in collaboration with one another by helping each other and sharing information.

3. Members should build a shared collection of online resources such as stories, experiences and methods of addressing recurring problems.

OCoPs rely on internet-based communication technologies to facilitate knowledge sharing, such as discussions and question and answer sessions. The advantages of OCoPs include the ability to connect members, the ease of sharing information, the opportunity for members to engage in their learning process and the overcoming of distance and time barriers. OCoPs can reduce the sense of isolation that remotely located healthcare workers might feel (Jesionkowska, 2020; Pesare et al., 2017).

Generally, OCoPs have been found to contribute positively to adults' engagement in their learning process. A recent review of the empirical evidence of initiatives employing digital technologies to support continued professional development and peer-mentoring of healthcare workers in low-and-middle-income countries conducted by Guillaume et al. (2022) concludes: "*Virtual peer interaction and mentorship was found to contribute to positive learning outcomes across the majority of studies (n=27) through increased knowledge sharing, knowledge gains, improved clinical skills, and improved service delivery*". OCoPs' contribution to improved learning outcomes links closely to the participants' level of engagement. Whether the members engage or not depends on their sense of belonging to the community and the purpose of their engagement. OCoPs rely on the members' motivation to participate and can only function well if members engage, share information and raise and respond to questions.

To understand how OCoPs can be designed to maximise participants' engagement and learning outcomes, Abedine et al. (2021) conducted a systematic review of the existing evidence across 37 studies. They found that members of OCoPs are independent, experience-centred, problem-centred, self-motivated, goal-orientated, and life-long learners to achieve professional outcomes.

The review also suggests that adults' engagement in OCoPs could improve the learning processes. Therefore, it is essential to understand *how to strengthen learners' engagement in the OCoP*. The review points to several facilitators of engagement as well as several hinderers. The main facilitators of engagement in OCoPs include: *a sense of competition* which can improve adults' motivation and engagement; *micro-lectures* as they support engagement through ease of access to learning content in segments adjusted to needs; *interactive learning settings* support engagement as they can adapt according to the engagement and needs of the adult learner, and the *flexibility of the timing and location of participation* increases motivation and, thereby engagement. The *diversity of the group* composition of OCoPs can be both a hinderer and a facilitator of engagement. It is necessary to reflect on the composition of the OCoP members against the objective of the OCoP. Lastly, *active participation* in the learning experience design can increase adult learners' engagement in the OCoP.

By engaging learners in the design, they shape the OCoP to make sure it is relevant to their learning needs and goals.

The main hinderers of engagement identified in the OCoPs include ageing and the slowing down of the learning process, struggling with the necessary technology, lack of access to support, fatigue caused by a busy life and resistance if the learning process is directed by others. Adult learners are more likely to be engaged when they are actively involved. In addition, prior experiences were found to hinder engagement in situations where the OCoP is designed for small groups of adults with limited past experiences.

Maternity Foundation's Experience with OCoPs

Maternity Foundation is reviewing past experiences with CoPs in light of the literature, to understand how we can refine the setup to best cater to the needs of the participants.

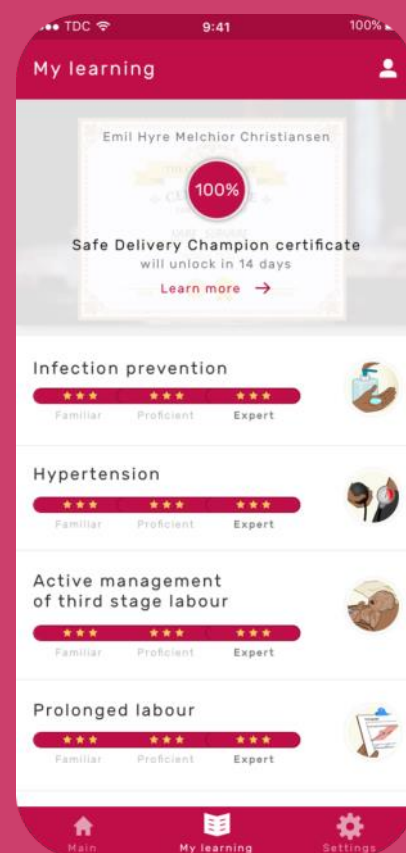
THE SAFE DELIVERY APP MYLEARNING

The Safe Delivery App (SDA) contains information on the latest WHO and national clinical guidelines on Basic Emergency Obstetrics and Newborn Care (BEmONC). The App includes animated clinical instruction films and reference materials.

MyLearning is a self-directed learning universe in the App where users can test their knowledge in the clinical content of the App. For each clinical content a three-staged test will take the learners through the levels familiar, proficient and expert. MyLearning is easy to integrate into the mentoring approach specific knowledge gaps can be addressed through targeted review and quizzing using the Safe Delivery App modules and MyLearning sections.

Safe Delivery Champion: Upon achieving expert level in all clinical modules the case-based certification exam is unlocked. If the learner achieves the passing grade, she/he will receive the Safe Delivery Champion certificate.

Accreditation and recognition: becoming a Safe Delivery Champion requires a substantial effort by the learner as the learner must pass the three levels in each module before the case-based certification exam is unlocked. The effort made by midwives to maintain critical clinical knowledge is recognized by midwifery associations and other accreditation institutes in some partner countries. For example, in Namibia, the Safe Delivery Champion certificate is shared with the midwifery association when a learner achieves the certification. The flexibility of the Safe Delivery App allows for custom certificate to be developed and shared with the relevant stakeholders upon completion. Maternity Foundation can also provide access to a tracking dashboard where users' progress towards certification can be monitored.



The communities of practice established as part of MF training initiatives provide a platform to share knowledge and experiences among participants. CoPs can play a role during the training period, allowing for discussions between training sessions and after the training. The CoPs were often set up by Maternity Foundation staff and subsequently left in the hands of project participants after the training ended. Combined with the Safe Delivery App, a community of practice facilitated via messaging services such as WhatsApp, Telegram, or groups on Facebook provides self-directed independent learning and social learning opportunities. This combination increases the likelihood that knowledge acquired during the training is retained. Table 1 provides an overview of the OCoPs set up to support MF trainings.

So far, MF's experience with OCoPs has been limited to local and project-specific OCoPs set up to support members who have been part of a topical training either to develop specific clinical skills or to cascade introductory trainings to the Safe Delivery App. As the information in the table 1 illustrates, activity in the OCoPs has varied a lot. Some groups remained active long after the initial period, whereas in others, it was challenging to motivate participation during the main period of the initiative. In our experience, internet connectivity plays a role in shaping the members' level of engagement. If connectivity is a challenge, it is important to encourage participation without images, photos, and videos to minimise the risk that poor connectivity discourages participation.

Feedback from the ENC project participants emphasised that the OCoP contributed positively to the training experience, and they found it to improve their learning outcomes. In the ENC project, the OCoP supported the spaced-out training approach, where shorter training sessions were delivered via Zoom every second week. In between the Zoom training sessions, exercises were sent to the participants via the messaging service, Telegram. The master trainers encouraged participants to do weekly homework exercises such as, e.g., ventilate the newborn mannikin or take specific tests in the Safe Delivery App MyLearning and share images on videos with the whole group upon completion. Making the exercises available in the group ensures that the

members can access them at their convenience. In some Telegram groups, it was observed that as soon as one or two members shared their progress, others were more likely to follow.

Participation in all groups was voluntary, and all except one were set up without an explicit Code of Conduct. A dedicated online "room" with only invited members was created for each OCoP using digital technologies. Members could participate when it suited them and were not tied to a specific schedule. In MF's experience, time set aside for participation is less relevant for an OCoP than a physical CoP.

Going forward

Maternity Foundation is interested in creating a continuous OCoP that allows for Safe Delivery + training participants to stay connected with peer midwives from across the globe. None of the past OCoPs set up by MF had participants actively engaged in developing the learning experience. The literature on OCoPs and mobile-enabled social learning suggest that engagement is closely linked to the members' involvement in designing the learning experience and the ease of participation. In all cases, a shared repository of information and knowledge was created, but the ease of continued access was not a primary consideration. For example, Telegram does not include a file library, which Facebook and WhatsApp do. By creating an OCoP with a shared resource repository, we can ensure that members can access resources continuously when it suits them. Using tools such as online polls and text analysis of most frequently asked questions will also ensure that micro-lectures and other content developed corresponds to the learners' needs.

Using well-known technologies such as Whatsapp, Telegram or Facebook rather than developing separate platforms minimises potential technological barriers. Many people from the target group are already familiar with those platforms. Membership in the group will need to be authorised to ensure that only individuals who share knowledge and interest in maternal and newborn health and practice the relevant skills join. Several moderators should be assigned to ensure that questions posed to all members are relevant and within the scope of the OCoP.

Table 1: Overview of MF's experience with CoPs

	What was the objective of the group?	How was it set up?	Were in-person activities included	Who was invited/involved?	Voluntary participation?	Was a core group established or a coordinator found?	Was time allocated for participation?	Did the CoP aim to address specific practices?	Has activity continued after the planned "life-time"?	How was the engagement level?
Uganda	To provide a discussion space for HCWs introduced to the App.	A WhatsApp group set up by MF. No code of conduct included.	No. The training of Trainers was fully remote, and the only activity supported by MF.	47 participants from the zone of partner's project area (Inclusive Health Bureau)	Yes, and users can leave at any time.	No	Participation during members' own free time.	Yes, focus on skills for dissemination of the Safe Delivery App.		
Benin	To facilitate advice on clinical cases, facilitate the exchange of experience and technical discussion, create social cohesion, promoting competition for excellence.	WhatsApp was set up by Bornefonden. A Code of Conduct defined the rules for all participants of this Safe Delivery Forum.	Yes in-person TOT for 15 trainers followed by in-person cascade training for 82 midwives in the project area.	WhatsApp forum grouped all beneficiaries, trainers, doctors, and supervisors from the targeted health zones for a discussion group.	Yes, and users can leave at any time.	Not known.	Participation during members' own free time.	Yes, focus on skills for dissemination of the Safe Delivery App.		
Zambia	To provide a platform for discussion and coordination for champion SDA trainers and to share achievements/ ask questions.	A WhatsApp group set up by MF. No code of conduct included.	Yes, a 2-day in-person TOT with champion trainers identified by MOH was held in September 2019 in Lusaka	20 champion trainers (OB-GYNs, pediatricians, midwives selected by MOH), MF and UNFPA staff, MOH representative	Yes, and users can leave at any time.	Yes. 2-3 users became most active in sharing updates and encouraged others to do the same	Participation during members' own free time.	Yes, focus on skills for dissemination of the Safe Delivery App.		

Ethiopia, ENC project	To facilitate coordination and provide a space for sharing of best practices, exchange information, and support joint learning.	A Telegram group set by MF staff consisting of both onsite facilitators and training participants. No code of conduct included.	Yes, the CoP was an integrated part of a training with onsite facilitation and master trainers delivering the training remotely via video call.	Facilitators and training participants.	Yes, and users can leave at any time.	MF staff and on-site facilitators	Participants are expected to share weekly activities while practicing. No dedicated time for participation.	Yes, resuscitation skills and essential newborn care practices.	No	Poor due to the remoteness of the areas and low connectivity.
Ethiopia, Novo project	To facilitate coordination and provide a space for sharing of best practices, exchange information, and support joint learning.	A Telegram group set up by MF staff consisting of both mentors and mentees, AARHB. No code of conduct included.	Mentors conducted mentoring visits MF staff also available for supervision and training	Mentors, mentees, and Addis Ababa Regional Health Bureau	Yes, and users can leave at any time.	MF staff, Addis Ababa Regional Health Bureau	Participants were expected to share activities, with no dedicated time for participation.	Yes, resuscitation skills and essential newborn, hypertension, post-partum hemorrhage, infection prevention, and COVID-19 care practices.	Yes, participants share their progress on the Safe Delivery App, practicing on the doll in the established mentoring corner	Both mentees and mentors share pictures, and a few participants share difficult cases for discussion and the best ways to manage it.