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LEARNING BRIEF

The importance of mentoring in midwifery education

Introduction

Maternity foundation (MF) along with regional health bureaus and other health organisations support mentoring as a way to assist the global demand for improved quality care. MF promotes the use of mobile health solutions and training programs to assist in improving skills and competencies of skilled birth attendants and improving their competencies. Although significant progress has been made in reducing maternal and newborn deaths, the need to improve quality midwifery education still persists (Nove et al., 2021). Globally it is estimated that about one still birth occurs every 16 seconds, which translates to around 2 million still births every year (United Nations Inter-agency Group for Child Mortality Estimation et al., 2020). Over 40% of all still births occur during labour – most likely due to complications and illnesses that could have been prevented with high quality monitoring and care with the presence of a skilled midwife (United Nations Inter-agency Group for Child Mortality Estimation et al., 2020). The State of the World's Midwifery report 2021 indicates that “fully educated, licensed, and integrated midwives supported by interdisciplinary teams can deliver about 90 per cent of the essential sexual and reproductive, maternal, newborn and adolescent health (SRMNAH) interventions across the life course, yet they account for less than 10 percent of the global SRMNAH workforce” (Homer et al., n.d.). Midwives and Skilled birth attendants play an essential role in improving maternal and newborn health. Alleviating restraints like access to information, guidelines and quality training tools can help Improve the education of Skilled birth attendants in low- and middle-income countries.

It is necessary to prepare midwives as best as possible for the clinical world so that they can provide a high standard of quality care (Homer et al., n.d.).

Mentorship programs, used in many professions, is a way to prepare students to become competent and confident practitioners (Myall et al., 2008). Using evidence, this brief will discuss the benefits of mentoring as a way to train and sustain a healthy and supported workforce. Adult learning theories highlight the importance of experiential, contextual and reflective learning practices for healthcare (Flynn & Stack, 2006; Forneris & Peden-McAlpine, 2006; Knowles, 1990; Niles et al., 2017). As andragogical methods these learning practices can contribute to the continued need for improving professional health care services and quality of clinical care in low-resource settings (Jayanna et al., 2016). Using adult learning theories and secondary evidence in the form of qualitative and quantitative data this brief will dissect the theory and apply it to the evidence supporting mentoring as a training tool. The aim of this brief is to align components of mentoring, using evidence, that are supported and are relevant to components of adult learning theory.

Global Context

Universal coverage of midwife-delivered interventions could avert two thirds of maternal and neonatal deaths and stillbirths, allowing 4.3 million lives to be saved annually by 2035 (United Nations Inter-agency Group for Child Mortality Estimation et al., 2020). The State of the World's Midwifery reported by the UNFPA (2021) in partnership with WHO and ICM emphasise these key areas as being beneficial to invest in: education and training; health workforce planning, management and regulation and the work environment; leadership and governance; and service delivery (Homer et al., n.d.).

The UN's millennial goals (MDGS) and later the UN's Sustainable Development Goals (SDGS) provided a framework for unified efforts committed to reducing maternal mortality. The seventeen SDG goals, though broad and interdependent, further specify a set of "actionable" targets. Targets specific to the issue of Reproductive, Maternal, Newborn and Child Adolescent Health (RMNCAH) services are contained in SDG3 - "Good health and well-being" (Sustainable Development Goals (SDG 3), n.d.).

SDG 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

SDG 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

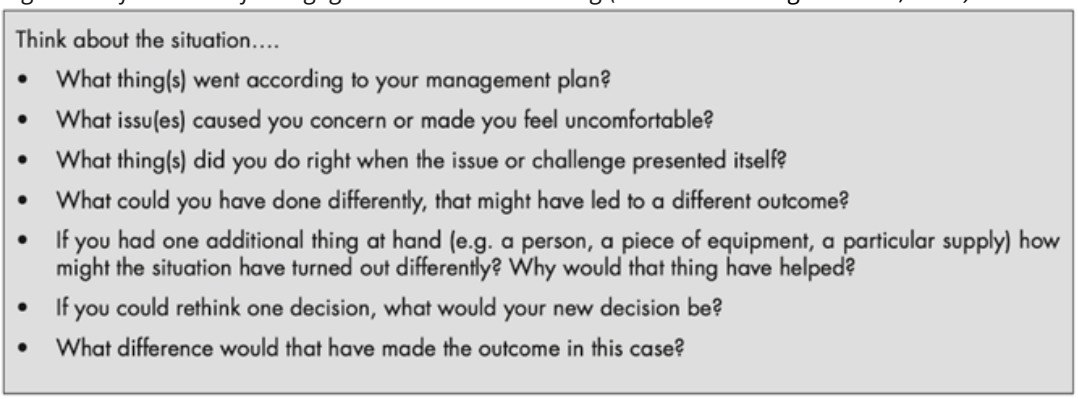
It is important to consider the wider scope of adult learning and how it can contribute to improved health care and education. Quality education is central to all health systems, including midwifery. It is necessary to prepare midwives as best as possible for the clinical world so that they can provide a high standard of quality care (Homer et al., n.d.). The quality of RMNCAH services is variable across contexts including the quality of training programs and accessibility of information. Worldwide there is a need to improve quality midwifery education and increase the number of competent practitioners (World Health Organization, 2013). The global health community has become more focused on developing comprehensive strategies to address four dimensions: Availability, Accessibility, Acceptability and Quality (Homer et al., n.d.). Initiatives focused on improving RMNCAH services in these areas can help meet the increasing demands to reduce maternal and neonatal mortality and morbidity rates worldwide (World Health Organization, 2013).

Programs should consider these four dimensions when developing training and education programs. For example, they could reflect on whether the content of the training/education program is consistently operational in its initiatives, if the information is accessible to its target audience, if the initiatives methods and programs are tailored for local adoption and if the implementation of the program follows proven strategies for facilitating adult learning.

Adult learning theory

The relationship between the mentor and mentee is based on active participation, a key component of adult learning theories (McKenna, 2003). There is a plethora of theories with no true consensus, yet they all overlap and borrow many aspects from one another. Malcolm Knowles developed the term Andragogy in 1968 as "the art and science of teaching adults' (Flynn & Stack, 2006). He was influential in formalising adult learning theory. Based on six assumptions, Andragogy emphasised the process of learning rather than just the content being learnt. The key components of this theory and its developments as it relates to mentoring is as follows. Adult learners will benefit from their own knowledge and life experience as a way to build on and transform their own knowledge (Knowles, 1990). Using real world examples, the learner learns through doing and applying there knowledge rather than just memorizing it (Flynn & Stack, 2006). The learner will evaluate his/her own experiences in the clinic to build upon their own knowledge and skills in the future. Self-directed learning theory ties into this theory of Andragogy as one of the six assumptions. Developed by D.R Garrison in 1997, it contends that adult learners need to be able to monitor and evaluate their own learning and learning needs. The dissemination of this theory is most appropriate when the adult learner is provided with a supervisor, a facilitator, or a tool of some sort that can assist in retrospect (see figure 1 and 2). Depicted in the former theories, Experiential Learning Theory developed by Kolb in the 70s, supports the active participation of the learner for their learning (Flynn & Stack, 2006; Knowles, 1990). The learner will practice, reflect and draw conclusions from their experience, engaging in critical thinking and reflection (Figure 1), finally they will consolidate what they have learnt into future practice (Rutherford-Hemming, 2012). A facilitator in this scenario will encourage self-reflection as a tool to further knowledge and skills in clinical settings. This is not only specific to mentoring but also other teaching and learning exercises, like, role- play, simulation training, peer reviews etc. Practice and reflecting upon practice allow individuals to refine and translate their capabilities into performance (Forneris & Peden-McAlpine, 2006; World Health Organization, 2019). Integrating content knowledge with knowledge of the context, followed by reflection is a key component of these adult learning theories (Forneris & Peden-McAlpine, 2006).

Figure 1: A framework for engagement in critical thinking (World Health Organization, 2019)



Mentoring

Mentoring for teaching and learning is supported by adult learning theories which highlight the importance of experiential, contextual and reflective learning practices for healthcare (Flynn & Stack, 2006; Forneris & Peden-McAlpine, 2006; Knowles, 1990; Niles et al., 2017). Mentorship programs, used in many professions, is a way to prepare students to become competent and confident practitioners (Myall et al., 2008). As andragogical methods these learning practices can contribute to the continued need for improving professional health care services and quality of clinical care in low-resource settings (Jayanna et al., 2016). Mentoring allows mentees to gain confidence whilst applying theory to practice alongside. Although discrepancies exist in the definition and practice of mentoring/mentoring programs it is generally accepted that mentoring consists of a collaboration between two individuals whereby a more experienced mentor is paired with a less experienced mentee (Flynn & Stack, 2006; Thorndyke et al., 2008). As a facilitator of the learning process the mentor will equip the mentee with the procedures and resources for self-directed and reflective learning, a tool to help adults acquire knowledge and skills (Knowles, 1990). The mentor will provide various kinds of personal and career assistance with the goal of advancing the psycho-social and professional development of the mentee (Arthur & Kram, 1985).

Research, to date, demonstrates that workplace/clinical mentoring programs are associated with a range of benefits. The Global Advisory Panel on the Future of Midwifery and Nursing (GAPFON), inspired by an IOM report, includes mentoring as a strategy to improve health care systems (Sigma Theta Tau International, 2018). The commitment to improve the quality of midwifery education is essential for the prevention of maternal and new-born deaths (Sigma Theta Tau International, 2018). This is not limited to the health sector but is used as a method for teaching across disciplines.

Figure 2: Monitoring Midwifery Competencies Self-assessment tool – EXTRACT (World Health Organization, 2019)

NOTE: This excerpt, containing only a very limited number of knowledge, skills and abilities statements drawn from the ICM *Essential Competencies for Basic Midwifery Practice*, is offered only as a *model* of the tool, demonstrating the areas of assessment and the approach to measurement. The complete list of competencies (version 2010) can be found as a core document at http://www.internationalmidwives.org.

ICM Essential Competencies	COMPETENCE			CONFIDENCE				
Knowledge, skill, or professional behaviour (KSB)	I have *not* updated my knowledge, OR I have *not* performed this skill safely within the past year	I have updated my knowledge, OR I have performed this skill safely *at least one time* within the past year	I am current in my knowledge, OR I have performed this skill safely *on more than one occasion* within the past year	Self-rating of confidence in current knowledge OR safe performance of this task item				
				Not at all		Somewhat		Very
				1	2	3	4	5
COMPETENCY #1: Midwives have the requisite knowledge and skills from obstetrics, neonatology, the social sciences, public health and ethics that form the basis of high quality, culturally relevant, appropriate care for women, newborns, and childbearing families.								
The midwife has the knowledge and/or understanding of.....								
methods of infection prevention and control, appropriate to the service being provided								
human rights and their effects on health of individuals (includes issues such as domestic partner violence and female genital cutting)								
Additional statements follow....								
Professional behaviours:								
is responsible and accountable for clinical decisions and actions								
acts consistently in accordance with professional ethics and values								
Additional statements follow....								

Practical Obstetric Multi-Professional Training PROMPT, a program implemented in Zimbabwe, highlighted the benefits of clinical practice over theory (Crofts et al., 2015). Simulations in local clinical settings can mimic decision making processes needed in real life emergencies (Lamé & Dixon-Woods, 2020; Niles et al., 2017; Rutherford-Hemming, 2012). This training acted like a catalyst for improved change, knowledge, and skills. It also fostered confidence, interprofessional culture, and communication among staff members (Crofts et al., 2015). Projects like MOMENTUM in Uganda presented comparable results (Kemp et al., 2018). The Ethiopian Ministry of Health (MOH) incorporated the Senior Midwives Mentorship (SMM) model in 25 out of 100 woredas (*Senior Midwife Mentoring in Ethiopia*, n.d.)**.** The findings of the SMM study show that the SMM model appears to have been effective in building the capacity of health workers to provide MNH services, improving the quality-of-service provision, and the continuum of care. Changes to Ethiopia's guidelines include scaling up mentoring on a national level to improve the quality of midwifery care. Qualitative and Quantitative survey data collected in both India and Nepal at the baseline, midline and endline also revealed improved scores for groups where mentoring was implemented (Creanga et al., 2020; Goyet et al., 2020). Other studies focus on providing a systematic review of literature or case studies evaluating the implementation of mentoring programs in different settings - facilities, urban/rural and countries (Feyissa et al., 2019; Luyben et al., 2017; McKenna, 2003; Muleya et al., 2015; Myall et al., 2008; Schwerdtle et al., 2017). Their findings supported the implementation of mentorship programs as a way to improve quality of care outcomes in LMIC. Effective mentorship programmes are useful in increasing healthcare worker capacities. Literature shows increased retention of skills after implementation of mentoring programs (Tang et al., 2016). Following the implementation of several mentoring programs on local and national scales the following gains have been reported; knowledge and skills, reflection confidence and support, continued professional development.

Knowledge and skills

Applied learning or contextual learning is much more effective in knowledge retention than simply sitting in a lecture (Flynn & Stack, 2006). It allows students to integrate "content knowledge with knowledge of the context" (Forneris & Peden-McAlpine, 2006). Mentoring programmes are an indicator of this as studies show improved high-quality emergency obstetric and neonatal care (EmONC) services. Studies in Malawi, Nepal and India reported improved scores, from baseline to endline for knowledge tests after the implementation of mentorship programs (Creanga et al., 2020; Goyet et al., 2020; Tang et al., 2016). The authors concluded that practical training and refresher courses are valuable in improving EmONC knowledge and skills retention. The clinical setting is most beneficial to consolidating and improving practical knowledge and skills to practice their discipline (Muleya et al., 2015). It is specifically tailored to what the mentee needs in terms of skills building, psychosocial support, role modelling and professional development opportunities (Arthur & Kram, 1985; McKenna, 2003; Shah et al., 2011)**.**

Reflection

"Educational methodologies that incorporate the use of context in a reflective, dialogical approach over time hold much promise in developing a dynamic process of thinking in practice " (Forneris & Peden-McAlpine, 2006). Along with a more trained professional, mentees have the space and time to reflect on situations that have occurred and engage in collaborations to solve problems. Individuals can critically reflect upon their experience and evaluate what they did well and what they could have improved (Forneris & Peden-McAlpine, 2006; Smith et al., 2012).

Mentoring programmes allow for a deeper expression of experiences to better understand what can occur; mentees can describe what they thought and felt during the process so as to operationalise it into the future (Smith et al., 2012). Constructive feedback is important for the development of critical thinking skills (Muleya et al., 2015). Maintaining this premise of experiential learning theory requires both individuals to self-reflect, set expectations, and be actively involved in the learning process (The University of Texas Health Science Center at Tyler., 2021). Creating an environment where individuals feel responsible for monitoring their own learning would improve skills like confidence, team building, and self-regulated learning (Knowles, 1990). The Strengthening Midwifery Toolkit provides a framework for engaging in critical thinking processes, Figure 1 (World Health Organization, 2019). Figure 2 and 3 is an extract taken from a monitoring tool provided by WHO, for midwifery competencies through self-assessment, peer or supervisor assessment (World Health Organization, 2019) .

Confidence and support

Mentorship helps newly trained midwives and HCW adapt to the political climate of the clinical world, providing a foundation for professional socialisation and career development (Flynn & Stack, 2006). If effective, mentoring should support the mentee transition into the clinical setting by helping them develop a supportive network (*Senior Midwife Mentoring in Ethiopia*, n.d.). This psychosocial support can accrue improved job performance, early career socialisation, career advancement and leadership development (Schwerdtle et al., 2017). One study identified several qualities students look for in a mentor, which include someone who is 'supportive', 'helpful', 'knowledgeable' and 'experienced' (Myall et al., 2008). Mentors that provide constructive feedback, encourage discussions on progress, and challenge the practice of their students contributed to a good quality placement experience (Myall et al., 2008). Supportive supervision utilises experience as an opportunity for learning in order to train competent and confident midwives (Schwerdtle et al., 2017); (Myall et al., 2008). The MOMENTUM project in Uganda found mentorship to be a supportive practice for the teaching and learning of health professionals (Kemp et al., 2018). Mentees can practice their skills through hands-on practice with the support of someone more experienced (Muleya et al., 2015).

Continued Professional Development (CPD)

Through CPD, confidence, competency, knowledge, and skills improvement can be cultivated, upheld, and nourished (World Health Organization, 2019). In fact, these traits are all mutually beneficial. Feedback and reflection, the ability to monitor and regulate learning, is an important part of continuous learning and CPD (Embo & Valcke, 2017; Muleya et al., 2015). Mentoring as a training practice supports the CPD of individuals as do many other training practices. It is important that midwives and HCW participate actively in the development of self and others (McKenna, 2003) as it can contribute to the quality of health care services delivered (Feyissa et al., 2019). Mentoring for the mentor is also a path for career and leadership development, as skills such as confidence, knowledge and communication are improved (Niles et al., 2017). Opportunities for continued professional development can vary, yet it is important for midwives and HCW to learn the tools needed to continually monitor, sustain, and improve their knowledge and skills.

Challenges

Mentorship programmes lack endorsement in many countries and the quality, content and duration are highly contextual and despite the recent push for interventions that support the development of health care systems, there is a dearth of robust empirical evidence monitoring the benefits and challenges of mentoring. Such research would benefit the future of mentoring as it explores and refines its effectiveness in everyday practice.

The evidence provided in this brief analysed and explored the implementation of several different mentoring programs both on local and national scales. Little extensive and complete documentation currently exists that evaluates the benefits and challenges of mentoring programs in low-income countries (Niles et al., 2017). This makes it difficult to research as there is no absolute definition of mentoring, its benefits, and the different types of programs. Despite the recent push for interventions that support the development of health care systems, there is a dearth of robust empirical evidence monitoring the benefits and challenges of mentoring (Luyben et al., 2017). Not all countries have the resources to implement a national standard for one-to-one mentorship and an innumerable number of factors need to be considered. Therefor mentoring programs vary according to scope and rely on institutional strengthening to standardise and develop teaching and learning for midwives. It also relies on closing the gap between theory and practice to fully understand the benefits of adult learning theory in adult learning programs. Such research would benefit the future of mentoring as it explores and refines its effectiveness in everyday practice.

Beyond mentoring

Other types of mentoring exist including programs that utilise the practical aspect of its programmes. These teaching and learning initiatives are among many factors that can help improve the quality of care given by midwives. There are many other training practices that can foster supportive supervision, active learning and the CPD of health care professionals. To address the quality of midwifery we must address the quality of midwifery training programmes. From this brief we can ascertain that the practical nature of midwifery initiatives supporting the transition from theory to practice can yield a full range of benefits contributing to the quality of RMNCAH services. Many studies indicate that the practical nature of mentorship programmes is valuable for the competencies of midwives.

Other interventions exist that can help utilise the competencies of midwives in low resource settings. These can include mobile mentors (Creanga et al., 2020), twinning (Kemp at al 2018), simulation training (Lamé & Dixon-Woods, 2020), digital training tools or more broadly programmes that support and adopt 'learning by doing' (Ugwa et al., 2018). More importantly midwives and HCW need access to updated information and training to keep up with the evolving nature of health care.

Midwifery education programmes lack endorsement in many countries and the quality, content and duration are highly contextual. Although many theories and studies support the implementation of mentorship programmes in low- and middle-income countries a fully developed overview does not exist (World Health Organization, 2019). Scarcity of resources, time and incentives could also impede the ability of midwives and HCW (McKenna, 2003). Putting too much pressure on mentors without adequate incentives could be counterproductive especially in low resource settings. Further research and evaluation of the types of mentoring, its implications and benefits would assist in providing a fully comprehensive overview (World Health Organization, 2019).

National, international, and local bodies must push towards improving the structural limitations of health professionals to utilise the implementation of mentoring programs and quality RMCAH training programmes.

Digital training tools: SDA app

Digital training tools have the capacity to support the development of health care workers in low- and middle-income countries (Long et al., 2018). Tools that have the capabilities of being more accessible need to be considered in contexts where mentoring isn't always possible. The SDA app is an mhealth tool that provides midwives and HCW workers with evidence-based and up-to-date clinical guidelines on Basic Emergency Obstetric and Neonatal Care. With a range of animated instruction videos, action cards and drug list it provides an alternative to address the shortages of staff and lack of resources especially in rural areas. The SDA app is not only a visual and auditory aid in times of emergencies as it can also be used as a tool for self - directed learning, peer assessment and mentoring. The MyLearning universe in the app allows users to test their own knowledge using digital "real life" examples. *"It can serve as a training tool both in pre- and in-service training and equips birth attendants even in the most remote areas with a powerful on-the-job reference tool"* ('Safe Delivery App', n.d.). Although it is not a replacement to mentoring or quality training mhealth tools can help with a lack of internet (downloadable) (Bolan et al., 2019), time (emergency help when mentor is not there) and continued professional development (champion, my learning etc) (Long et al., 2018) and even digital simulation training for areas that lack equipment.

Conclusion

Quality education, training programmes and improved access to resources enable midwives and HCW to utilise their potential (Nove et al., 2021). Almost all of the included literature supported mentoring interventions as a method for improving RMNCAH services. While several types of mentoring exist, its foundation, more experiential teaching and learning methods, sought to improve midwifery and HCW outcomes. The practical nature of these methods distinguishes it from other more traditional teaching methods. Supporting their transition from theory to practice, mentorship allows individuals to "learn by doing" (Creanga et al., 2020). This exposure into/ to the clinical world allows new midwives to acclimate more confidently and effectively (Muleya et al., 2015). It can reveal the nuances of experience that may be harder to capture in a formal classroom setting (Forneris & Peden-McAlpine, 2006). Mentoring is one way to improve the education of midwives and health care workers under the aegis of adult learning theory. Improving education and training programs can help strengthen maternal, neonatal and child services in low-income countries.

This brief was prepared by Alexandra Smith during her internship with Maternity Foundation

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