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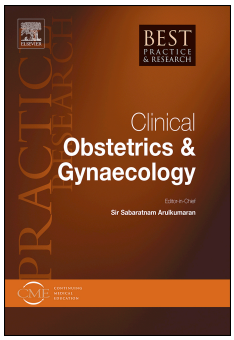

Start here- Principles of effective undergraduate training

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Start here- Principles of effective undergraduate training

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Abstract

Obstetric and gynaecology undergraduate training is an intense time for learners as they encounter various health conditions related to women's health and also learn about pregnancy care and birth. The experience is directed to familiarise students with basic clinical management of gynaecological conditions, also develop communication and related core examination and procedural skills. Similarly, midwifery training encompasses independent care of low-risk pregnant women and assist in care of high-risk pregnancy in partnership with obstetricians.

Although its necessary to acquaint most learners with core clinical skills in obstetrics and gynaecology, learning opportunities on patients can be limited, due to the intrusive nature of women's health examination. Simulation Based Education (SBE) can facilitate learning hands-on clinical examination and procedural skills, using realistic part-task and high-fidelity simulators prior to approaching patients. This can apply to both medical and midwifery undergraduate training, further creating opportunities for professional interaction and shared learning space to facilitate interprofessional education. IPE has been shown to improve professional relationships in practicing clinicians. This learning pedagogy can be applied in the undergraduate setting as well, to decrease risk of conflict and appreciate roles of other interprofessional staff in future clinical practice.

In this chapter we highlight some challenges faced by medical and midwifery undergraduates in their learning from a global perspective. We also describe some teaching and learning initiatives that can be applicable across various settings of obstetrics, gynaecology medical undergraduate and midwifery teaching with relevant case studies to facilitate new graduates preparedness for practice.

Key words

Skilled Health Personnel, interprofessional education, obstetric, undergraduate, midwifery

Introduction

The World Health Organization estimated that 295, 000 maternal deaths occurred in 2017 and 86% of these deaths occurred in sub-Saharan Africa and southern Asia(1). This is partly attributed to lack of Skilled Health Personnel (SHPs) available for conducting births safely. Although the proportion of births attended by Skilled Health Personnel (SHP) increased from 59% in 1990 to 71% in 2013, this was not associated with equal reduction in maternal mortality ratio(2, 3). According to the obstetric transition model, for further reduction of MMR in stage 3 (MMR 299-50), as more women have facility births, the quality of care provided becomes a major determinant of health outcomes(4). Competent skilled health personnel working in well-resourced health systems are required to deliver good quality care.

The International Federation of Gynaecology and Obstetrics (FIGO) and the International Paediatric Association in 2018, defined skilled health personnel as competent maternal and newborn health (MNH) professionals educated, trained and regulated to national and international standards(5). Skilled health personnel are competent to: (a) provide and promote evidence-based, human-rights based, quality, socio-culturally sensitive and dignified care to women and newborns; (b) facilitate physiological processes during labour and delivery to ensure a clean and positive childbirth experience; and (c) identify and manage or refer women and/or newborns with complications. Additionally, as part of an integrated team of MNH professionals (including midwives, nurses, obstetricians, paediatricians and anaesthetists), they perform all signal functions of emergency maternal and newborn care to optimize the health and well-being of women and newborns(6). Also, midwives/mid-level health care providers trained to ICM standards can provide nearly all of the essential care needed for women and newborns, working within an enabling environment. It should be noted that in different countries, these competencies are held by professionals, with varying occupational titles(2, 4, 6).

Midwives educated, regulated to international standards and working in well-equipped enabling environments, provide 87% of essential maternal and newborn health care services(7). Also it is estimated that universal coverage of essential maternal, newborn and family planning interventions that fall within the scope of midwifery practice could avert 83% of all maternal and neonatal deaths and stillbirths(8).

The objective of this paper is to highlight some of the challenges faced by medical and midwifery undergraduates in their learning from a global perspective and review the principles of effective undergraduate midwifery and obstetric practice.

Overview of undergraduate medical and midwifery training

Undergraduate medical curricula are usually designed to equip students with a basic level of core competence in performing clinical procedures and taking management decisions, suited to an intern level. Midwifery courses can be either postgraduate or undergraduate; in both settings, the course provides them education and skill to look after low-risk women independently and care for high-risk women, with the obstetric clinicians.

Some of this teaching takes place in a classroom with lectures and demonstrations, while the major bulk of clinical teaching relies upon hospital or community-based clinical placements. Medical education in undergraduate obstetrics and gynaecology is mostly delivered in clinical years of medicine training (usually the final two years of the medical course). The duration of learning this specialty for medical students can range from 6-12 weeks in most countries, usually taught in a continuous block of a few weeks at a time. Due to training limited to this timeframe, most medical schools have an intense teaching program that involves students attending after hours birth unit shifts and prolonged operating room sessions. Midwifery courses range from 2-4 years in different settings and learning in through hands on experience, on clinical wards and birth units in the final years(9). Learning on hospital wards, in outpatient

clinics and operating theatres occurs by students observing and assisting clinicians and by their direct patient interactions.

In the following section of the chapter, we describe the challenges in undergraduate medical and midwifery training and identify some pathways that have been shown to overcome these hurdles in training. Through these we also attempt to address the principles of providing high quality training to undergraduates learning obstetrics/ midwifery and gynaecology. At the end of this section, we shall provide some case studies as illustrative examples of best practice in undergraduate training.

Challenges in undergraduate obstetric and gynaecology medical and midwifery training

Obstetrics and gynaecology can be considered a unique specialty bordering onto both surgical and medical fields bringing great variety of rich learning experiences for medical and midwifery students. Obstetrics may appear a productive and fulfilling career for both aspiring medical and midwifery students as it involves care of (mostly healthy) pregnant women. Frequently obstetricians may need to perform indicated interventions, like an instrumental birth or a caesarean section, where most women have good pregnancy outcomes and positive birth experiences. Similarly midwifery practice requires management of pregnancy, births and postnatal care. Indeed, a core competency of SHP is the facilitation of physiological processes during labour and delivery.

Gynaecology practice on the other hand, looks after women's health and wellbeing from their menarche to menopause and beyond. It may require surgical interventions to treat fertility, menstrual cycle abnormalities and cancers. Together the fields of obstetrics, gynaecology, and midwifery encompass a wide range of clinical variation with unhurried outpatient practice consultations to management of time critical emergency situations. Hence, various core skills

are required for these specialties; to name a few are skills like empathy, adaptability, manual dexterity, ability to work in a team, leadership capability, time management and keeping calm in a crisis situation(10).

Challenges in undergraduate training

1. **Haptic nature of learning examination skills**

The largely physically intimate nature of obstetric and gynaecology makes it difficult to teach sensitive clinical examination. Haptic learning requires an individual's sensitivity to touch to be combined with the ability to combine partial tactile information about an object into a whole mental image. Skills such as abdominal palpation, vaginal and speculum examination pose challenges for teaching over a short time frame of a few weeks. Also due to the sensitive nature of gynaecology procedures, many women may decline examination by junior medical and midwifery students. This can possibly result in disillusioning some aspiring students in considering obstetrics or midwifery as a career option.

2. Sharing patient care with interprofessional obstetric/ midwifery/ nursing staff

Obstetrics is a unique specialty where both medical and midwifery clinicians work closely together, usually in an intense environment, to achieve a safe birthing outcome. Birth is a special event in a woman's life, where families can ne highly vested in the process, and often may be anxious about their birth experience. As part of their role, the team of obstetricians and midwives jointly care for the woman and aim for a safe birth and positive experience for women and their families. However, while both groups of professional staff members are vested in caring and advocating for the woman, some times differences in ideologies can cause them to disagree with each other's practice. Poor communication among staff members that work together in teams can further affect patient safety(11). As a result, lack of understanding of each other's roles in clinical practice, or respect for their contribution in clinical care can compromise the capacity of the team to provide optimum care(12).

3) Developing situation awareness and responsiveness skills

Pursuing obstetrics may involve looking after low risk healthy women all through their pregnancy. However it is not uncommon for women to develop sudden complications during pregnancy and labour, which can increase maternal or neonatal risks. Examples of such complications are occurrence of cord prolapse, fetal distress, shoulder dystocia, eclampsia and postpartum haemorrhage.

Situation awareness refers to being consciously aware of one's environment(13). Medical and midwifery students are rostered to attend birth unit shifts to observe intrapartum care and birth. Hence, the birth setting provides a unique opportunity for medical students to learn situation awareness skills. The clinical environment may be dynamic and situation may change quickly, requiring a proportionate response by the clinical team. Example of these skills may be developing effective communication, allocating resources wisely, performing under stress and time pressure in an emergency setting and timely escalation to senior staff.

Clinical staff members participating in routine intrapartum care and in an obstetric emergency, not only need to demonstrate clinical management or procedural skills but also display team-working and communication skills. This is because management of an obstetric emergency requires an intense degree of input from all teams involved in patent care including obstetricians, anaesthetists, paediatricians, nurses and midwives for providing optimum patient care(14).

Undergraduate obstetric training should include medical and midwifery students learning these skills together. These skills can be taught through exposure to the various birth scenarios on clinical placement or through a simulated program. The learning can also be transferable to other settings may be applicable in clinical practice outside obstetrics as well, such as in intensive care and emergency department. Besides medical and midwifery students may acquire team-based skills at the undergraduate level and can encourage their participation in

real life clinical emergency management. It can help them in thinking of themselves as part of the clinical team rather than quiet observers in the background(15).

4) Surgical training challenges in gynaecology

Basic surgical skills are an essential component, but poorly taught in medical undergraduate training(16). Opportunities for learning basic surgical skills can be impacted by increased student to patient ratio, decrease in exposure to observing and assisting in surgical operations. Lack of achieving basic surgical techniques can further influence interest in career. Gynaecology is a surgically–focused field. It is expected that junior residents on obstetrics and gynaecology rotations and nurses who start work in operating theatres, have previously been exposed to basic surgical skills teaching through their undergraduate years. Both theoretical and practical surgical knowledge and skills are necessary for clerking, consenting patients for surgery, for assisting during surgery.

5) Challenges with mentoring students

A less often discussed initiative is clinical mentoring of students by rostering a student to shadow an experienced clinician. This may provide students with an opportunity for close observation of clinicians in practice. They get an opportunity to get one-to-one time with clinicians to answer their clinical and non-clinical queries. It is an opportune time for students to view the specialty beyond the limits of a scheduled clinic or an operating session. Especially with obstetrician being on call and attending after-hours emergency, student get a holistic view of managing work-life balance with after-hours shifts. This experience may help students

decide if they would wish to consider obstetrics and gynaecology as a career choice. While the benefit of teaching received by students may be acknowledged, it also keeps clinicians engaged in active supervision and in providing guidance, which may be a fulfilling experience for teachers themselves. Increased student numbers compared to the number of experienced clinicians available makes implementation of this approach challenging in many low resource countries.

Pathways to addressing challenges with undergraduate education

In the section below we have described possible pathways to address the frequent challenges in learning obstetrics gynaecology and midwifery. These are also listed in Table 1.

1. ***Simulation based education (SBE)***

One way to partially overcome several of the challenges described in the previous section is through simulation-based education. Simulation can use simple task-trainers (low technology pelvic trainers or birthing models), advanced technology birth or haptic virtual reality simulators, which can replicate a clinical condition or a situation. Technology based/ mechanical simulators may be tagged with simulated patients, that can assist in driving the learner's behaviour. Simulation provides an immersive experience, where participants engage and step in the situation as if it is happening for real.

Simulation is defined by Gaba as "An educational technique that replaces or amplifies real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner"(17).

Simulation-based education can provide scaffolded learning by breaking down learning into small bite-sized independent steps that can be learnt and practiced one by one. They can eventually be integrated together to achieve expertise in that skill. Using a customized simulation design, the teaching can be tailored to address the learning needs of the

participants. Scaffolded learning in learners can enhance the learning journey, from being a novice to an expert. An example can be of learning bimanual pelvic or a speculum examination that is important for undergraduate medical students to learn. However, this skill is difficult to teach on patients, as it can be quite uncomfortable or even painful for the patient(18). Prior practice on a task trainer can facilitate familiarity with the instruments and technique that will make the teaching of a subsequent examination much easier on either a simulated (19) or a real patient. Once familiarity and comfort with technique is achieved after repeated practice on simulators, it becomes much easier for students to appear confident when examining real patients(20).

Role of Simulated patients (SPs) -

Simulated patients (or the clinical teaching associates, CTAs) can also play a significant role in teaching novice learners, specially in regards to skills where interactions, with patients is required through the procedure. They can guide students through technique of vaginal examination and also address the role of communication with real patients (21) prior to and during examination. As in the example of learning pelvic examination, students not only need to achieve mastery of the procedural skill, they also need to provide reassurance and support to the patient. This involves multi-tasking where the clinician is examining and also communicating with the patient at the same time. Learning from clinical examination of CTAs (with/ without practice of skills using task trainers) may be a way to equip students with core examination skills like performing a speculum or a bimanual pelvic examination or performing a cervical screen test. These learning initiatives have been suggested to not only improve confidence and comfort levels of the learners but also, decrease patient anxiety (22).

Hybrid Simulation –

Hybrid simulation encompasses learning hands-on skills using a simulator or a task-trainer while learning communication or behavioural skills, through an interaction with a simulated

patient (SP), at the same time. These can be used for all levels of learners from the novice to the expert level. For junior learners, like medical and midwifery students, they can be used for teaching skills like performing a vaginal, bimanual or a speculum examination. The examination is performed on the part-task trainers is and feedback (regarding discomfort caused, or anxiety related to the exam), is provided by the SP. In such situations, the learner continues to perform the exam on the simulator while communicating with the SP, simultaneously as required in the real clinical setting. This form of learning can also be applicable to intermediate level learners, such as junior doctors and midwives, who are learning to perform births on mannekins and, then birth real women on labour wards, which can help them improve their communication (23). Managing clinical emergencies, such as shoulder dystocia, require the team of obstetricians and midwives to act in a cohesive and synergistic manner (24). Multiple tasks are required, such as performing Mc Roberts manoeuvre by team members or internal vaginal manoeuvres, like the delivery of baby's posterior arm. These haptic skills require repeated practice to achieve mastery, often learnt on simulators (25), (26). However, the team also needs to learn to interact with the woman and her support person at the same time. These advanced level clinical and team management skills, are learnt effectively using hybrid simulation (27).

2. Role of Interprofessional education (IPE) -

Interprofessional education (IPE) is a training method where participants from different professions can be trained together and have the opportunity of learning with, from and about each other(28). Interprofessional programs have been shown to be effective in improving participant attitudes, mutual support, communication and assessment of the situation(29, 30). Interprofessional programs address the problem of up-skilling clinical staff in teams, but also facilitates appreciation for each others' roles, which is crucial for developing their own

individual professional and their team-based interprofessional identity(31). Recent times have noted a push to “embed” these learning programs into “interprofessional practice”(32).

Management of obstetric emergencies can be taught using simulation that can also help to improve situation awareness in medical and midwifery students. Obstetrics and neonatology can present emergency situations that require rapid decision making at any time, often unheralded. Students need to learn situation awareness skills to improve their preparedness to practice in the clinical world. Clinical situations like fetal distress and postpartum haemorrhage can be presented to teams of medical and midwifery students so they can work together to improve their team working skills.

In spite of its proven benefits, interprofessional simulation is still quite uncommon, specially in undergraduate or pre-registration training(33). As both medical and midwifery students are usually rostered in clinics and birth unit, there may be opportunities for them to interact both informally or through structured programs. Emergency management skills are relevant for both undergraduate and postgraduate learners. It prepares them to manage unexpected and rare emergencies and enhance their CRM performance translated to clinical practice leading to better patient outcome(34). Besides it also leads to students acquiring respect and understanding of each others’ roles and promotes a positive transformation on stereotypes and approach to collaborative care(14).

In spite of documented evidence of interprofessional team training showing benefit in teamwork and patient care, there are occasions where IPE can fail. The failure can be triggered by situations where there are significantly unequal numbers of medical and midwifery participants, and possibly lead to dominance of one group (35). Occasionally. perception of contest can occur, which may worsen interprofessional relationships. As a result, it may be ideal to include similar number of participants from both professional groups (if logistically feasible) and provide equal learning opportunities to both learning groups. Also, keeping the

activity goal-oriented, where both medical and midwifery students can contribute to teaching and supporting learning of the other professional group, can possibly also help in developing mutual respect (36).

3. Improving surgical skills training in undergraduates

Hospitals and medical schools have introduced initiatives to increase medical and nursing student interest in surgical specialties. Structured exposure to surgical fields through rostering in operating theatres and surgical assisting opportunities may increase medical students' career interest in a surgical field (37). Active learning opportunities through dedicated simulation programs may encourage students to pursue gynaecology training programs in future(38). Hands-on exposure to suturing and knot–tying will not only prepare undergraduate students for practice, but also provides an opportunity to explore whether they wish to pursue a surgical career in future.

Surgical training workshops can also be designed for both medical and nursing students to foster interprofessional collaboration in the operating room(39). As in the case of obstetric and midwifery training, medical and nursing undergraduates are trained through the lens of the specific profession, with scant opportunities for medical and nursing students to interact at the undergraduate level(40). Again, when students transition into practice, their ability to collaborate as part of the surgical team is essential to providing optimal care both during surgery and postoperatively(41). Early interprofessional education(42) can assist medical and nursing specialties to encourage shared learning(40), leading to safer patient care.

Illustrative examples of best practice in undergraduate training

Example 1

Women's Health Interprofessional Learning by Simulation (WHIPLS) –

We describe learning of core clinical skills in obstetrics and gynaecology – through Women's Health Interprofessional Learning by Simulation (WHIPLS) introduced in 2011 and the program has been running to date. Although initial participation by the students was on a voluntary basis, due to the success of the program it was later integrated into medical and midwifery curricula. To date participants' perceptions of learning has been demonstrated (improved confidence in performing these clinical skills) (20), their change in attitude towards the other professional group three months after attending the program (36) and knowledge attained through the program using pre-tests and post-tests (43). The program has sustained for more than a decade, and the process that was required for it to become embedded in the curriculum(44).

The WHIPLS program was a joint initiative by the Department of Obstetrics and Gynaecology, Faculty of MBBS and School of Midwifery at Monash University and has been described in detail elsewhere (20, 36). Briefly, half-day workshops consisted of preparatory reading, a lecture, a pre-recorded video demonstration and an experiential interprofessional skills workshop. Each workshop was conducted with groups of 6-8 medical and midwifery students using a simulation model (*Model Med, Melbourne, Australia)* and supervised by a medical or midwifery facilitator (Figure 1). The workshops were undertaken every three months and a total of eight sessions were run each year.

The medical and midwifery course leaders identified common problems in student learning and formed an alliance to teach overlapping clinical skills together. The clinical skills were best

suited to a combined "workshop-style" teaching session facilitated by both medical and midwifery educators. Initially, the variations in the duration of the respective courses, differences in the content and the ideal timing of the delivery were discussed jointly by the medical and midwifery educational leaders.

The program was evaluated using the modified Kirkpatrick's framework (28, 45). Student feedback regarding benefits of the program, relevance to their respective courses and value of the skills learnt in clinical practice was collected using a pre-test and post-test assessment of knowledge. These reports were shared with the leaders of the organization, the WHIPLS faculty and the students through presentation in education conferences, department and executive faculty meetings, media reports and papers for publication. This was a key step in achieving "buy-in" to embed the program and provide ongoing support in its development.

The success of the WHIPLS program lies in it being "sustainable" leading to modification of educational practice. For embedding the program, the students should be able to link the interprofessional learning with their clinical experience (36), (46) and be able to identify the relevance in their current learning context and also be able to see the application of that learning in future when they are in clinical practice.

Example 2

Obstetric and Neonatal Emergency Simulation (ONE-Sim) program

The Obstetric and Neonatal Emergency Simulation (ONE-Sim) program was introduced to train obstetric and neonatal, medical and nursing staff and other healthcare workers managing birth and related emergencies in the LMIC setting. The ONE-Sim program is an adaptable, culturally responsive learning package that engages local faculty to connect the learners using context that is applicable to their practice and hence has been developed and adapted to the undergraduate setting as well. The program engages medical and nursing staff to teach obstetric and neonatal emergencies like shoulder dystocia, post-partum haemorrhage to the

medical and midwifery undergraduate students in a team based setting. The facilitators assist small group of students in managing emergency situations followed by a joint debrief. The program helps to improve situation awareness skills develop teamwork culture, respect and understanding of roles. This program has also been conducted as an online simulation, where medical and midwifery participants would watch a scenario online and attend a joint debrief conducted live by medical and midwifery facilitators (47). The online version was particularly helpful in substituting skills based learning during the COVID-19 pandemic, where physical distancing restricted teaching activities in a group. Both in person and online ONE-Sim program versions have been conducted in India and other LMIC settings and the programs have run successfully across multiple undergraduate settings including Australia.

Example 3

Gynaecology surgical skills teaching workshop

The aim of teaching gynaecology to undergraduate medical and nursing students is to be able to equip them with basic surgical skills (e.g surgical suturing) and for learning minor gynaecological procedures like performing a cervical screen test, insertion of Intrauterine device (IUD) , or contraceptive implants and other similar procedures that may be relevant to their future practice. An example can be of a joint surgical/ gynaecological skills workshop for medical and nursing students. The surgical skills in gynaecology teaching can be conducted as a workshop where both medical and nursing students perform simple procedures like suturing and cutting sutures, knot tying, female urethral catheterisation and IUD and contraceptive implant insertions (48). These programs can also help students in developing interest in a surgical or a gynaecology career(49).

Example 4

The undergraduate midwifery syllabi and curriculum in Kenya was updated to meet the expected competencies for Skilled Health Personnel. This included Emergency Obstetric and Newborn care using a simulated medical education and interprofessional education

approach.(50) Low cost obstetric and newborn care mannequins were provided for teaching of medical and midwifery students. This training equipment were situated in a dedicated room and managed by dedicated faculty members. Midwifery and medical faculty were trained and supported to provide SBE at the Universities in Kenya: University of Nairobi, Moi University, and the Kenya Medical Training College, and in Nigeria: College of Nursing and Midwifery Ilorin and the University of Ilorin. Simulated medical education was successfully introduced into the curriculum for both undergraduate and postgraduate medical and midwifery education in these institutions. There is evidence that the use of SME results in improved knowledge and skills of undergraduate midwifery students and maternal and child health aides(51, 52). Investing in midwifery training and education, is a pathway to improved quality of care for women and their newborn. The effectiveness of the package of interventions to improve undergraduate midwifery education in Kenya is ongoing.

Summary

Undergraduate obstetric, gynaecology and midwifery training programs forms the cornerstone of women's health teaching. They equip students with knowledge and skills required for an entry to practice level as junior doctors and midwives. Hence, its important for students to be equipped with core clinical skills required for examining women and conducting simple procedures (e.g taking a cervical screen test) independently and be able to assist in a complex procedures (e.g management of complex births). For gynaecology training its an opportunity for students to improve their surgical skills and be exposed to and develop interest in a surgical specialty.

Undergraduate teaching also aims to foster values like developing respect for interprofessional teams and develop best practice team-working skills. This can be achieved through

introduction of interprofessional learning programs in the curriculum for both medical and midwifery courses.

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Conflict of interest: none

Practice points

- Simulation Based Education (SBE) provides medical and midwifery students with experience of hands-on clinical skills required in obstetrics and gynaecology
- Interprofessional Education (IPE) for both medical and midwifery students can create a platform for shared learning as undergraduates, with a view to improve future understanding of roles and teamwork skills when students qualify as clinicians.
- Hands on surgical skills can be introduced at the undergraduate level to familiarise students with basic surgical techniques in gynaecology and provide an opportunity to consider gynaecology as a future career option.

Research agenda

Implementation research on interventions to overcome challenges with undergraduate midwifery and medical education, especially in settings with limited resources is needed to facilitate uptake of interventions described in this chapter.

What is the cost effectiveness of various combinations of interventions (SBE, IPE, mentoring etc) to improve the quality of undergraduate medical and midwifery education in low resource settings?

Table 1 – Overview of challenges in obstetric and midwifery education with suggested measures to overcome them

Challenges in obstetric and midwifery training	Suggested measures
Haptic nature of learning examination skills	Simulation based education with part-task trainers (ideally introduced prior to examining patients)
Sharing patient care with interprofessional obstetric/ midwifery/ nursing staff	Interprofessional training programs to break team barriers, understand role of other teams, develop respect for interprofessional teams
Developing situation awareness and responsiveness skills	Simulation-based interprofessional team training with realistic (technologic) simulators and human patient simulation
Surgical training challenges in gynaecology	Simulation based training in undergraduate learning (either uniprofessional or interprofessional)
Challenges with mentoring students	Introducing mentor programs with clinicians/ educators/ near-peer learning

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Highlights –

- Training to become an obstetrician and a gynaecologist or a midwife is onerous and challenging, requiring learners to acquire a variety of clinical and behavioral skills
- Medical students undergoing their obstetric placements and midwifery students are challenged by learning haptic examination and procedural skills like performing a vaginal/ bimanual or a speculum exam or conducting a birth.
- Acquisition of interprofessional skills is recommended at the undergraduate level for ensuring good teamwork, communication and leadership, hence, promoting patient safety. This can be facilitated through Interprofessional Education (IPE) for medical and midwifery students.
- Interprofessional Simulation Based Education (SBE) can be considered for embedding in the undergraduate medical and midwifery curriculum to improve team-based behavioural skills.
- Surgical training for medical and nursing students can also focus of teaching hands-on procedural skills and teamwork taught through simulation-based interprofessional programs.