Simulation/skills training in midwifery/obstetric
Amniotic fluid embolism ...

Cardiac arrest ...

Resuscitation of the baby...

Death

Shoulder dystocia ...

PPH...
Why do we do simulation training in health care?

Simulation is a method of *teaching, learning* and *interaction* that allows the person who is learning, often with other learners, to practice how to treat patients

- without the patient being present
- and exposed to the *risk of mismanagement*
Why do we do simulation training in health care?

- To consolidate *new knowledge* in practical skills competence
- To assess *progress/success*
- In order to inspire *self-training* until you are competent
- To create an understanding that "*we are practicing until we manage*"
Why do we do simulation training in health care?

• Simulation- and skills training create *links between theory and practice*, which facilitate the student’s learning ability

• The opportunity to work in a *collaborative group* in an *open environment* is important for the learning process

• Simulation- and skills training make the students feel *prepared* and *confident* before clinical practice
What do we want to achieve through simulation training in health care?

- Good planning
- Communication
- Leadership
- Multiprofessional teamwork
- Perceived quality of knowledge/skills
- Improved quality of care/treatment
Why is simulation in midwifery/obstetrics important?

- Belgium: 9
- The Netherlands: 15
- Luxenbourg: 11
- Norway: 8

Afghanistan: 1100/100.00 live births
Why is simulation in midwifery/obstetrics important?

• Midwifery/obstetrics has become more challenging with more complex/complicated cases

• Increased risk of legal claims and litigations

• “Delicate subjects”; many women do not want to/reject to be exposed to students
Why is simulation in midwifery/obstetrics important?

- Skills can be practiced repeatedly under supervision
- Possible to make errors without doing harm
- Many skills and procedures require swift, accurate, and correct handling
Just-in-time (when it happens)

Normal childbirth

Relatively frequently occurring acute situations and cases

Rare, acute situations and cases

Just-in-case (in case it happens)

Rare, undramatic situations and cases
Just-in-case

VS.

Just-in-time
What can be simulated?

Skills:
• Normal childbirth
• Practical skills and procedures; e.g. support of the perineum, suturing
• Shoulder dystocia
• Breech delivery

Scenarios:
• Postpartum haemorrhage
• Eclampsia
• Prolonged labour

Photo: Bernt Erik Rossavik
What are the learning objectives in simulation training?

- Improve knowledge
- Improve skills/confidence
- Reduce errors
- Avoid morbidity/mortality
Who needs to simulate?

- Students
- *All* who are working in clinical maternal health care - the *un-skilled* and *the skilled*
- Educators
How do we conduct a simulation training?

• It is necessary to build trust, confidence and have a common goal for improvement
• Everyone/all professionals need to be involved/participate
  (Be aware of confidence, re-traumatizing, personal experiences)
• It must be realistic
• It must be relevant
• Self assessment
• Expect/accept errors to occur
Difficulty as perceived by the performer

# successes

Max motivation

# failures

Max fear/anxiety

McClelland 1985
What is a scenario?

- Medical case
- Normally carried out by two or more participants
- Clear patient description
- Pre-defined learning objectives
- Fixed starting point but «floating» along the way
- Assessment criteria normally involve both medical and (inter-) human factors
- Time-limited and with a clear set time for de-briefing
- Both en-route and final evaluation
Brief → Simulation → Debrief
Brief → Sim 2 → Debrief → Sim 1
Typical explanations...

...Don't have *time* to let everyone run the same scenario 2x
...There are *too many participants* to let everyone drive 2x
...Don't have enough *facilitators* to let everyone drive 2x
...Don't have enough *simulators* to let everyone run 2x
...Don't *see the point* of driving 2x
What does the evidence say about simulation training?

  - Focus: Effect-size of parameters influencing learning outcomes
  - 800 meta-studies
  - 15 years of research
  - 80 million students
  - 50,000 smaller studies

- What has the highest effect on learning and achievement is **self-evaluation**

- The urge to repeat is natural with most of us, even when we do something well. We use repetition to «over-learn» and to build confidence
My experience

- Some students were appointed “super-users”; they’re responsible for the simulation equipment as well as the simulation room.
- The students were eager to get this role.
- This responsibility was also credited them when they graduated.
My experience

Normal labour and childbirth

- A class with 40 students - divide them into small groups of 5 (20 before lunch, 20 after lunch)
- Either use SimMom or MamaBirthe with a standardized patient
- Create scenarios of different situations in labour and childbirth (E.g. young primigravida, grand multipara, anxious woman, talkative woman, etc)
- Different positions of the woman in first and second stage of labour
My experience

Normal labour and childbirth

• *One student* was attending the delivery, the others were observing
• We were *filming the situation* and looked at the film afterwards
• The students was focused on their *practical skills* as well as the *communication* with the delivering woman
My experience

PPH

- Demonstrated a scenario of PPH using MamaNatalie where *nothing* was correct

- Then we did the same again—where everything were correct

- Discuss and debrief
My experience

Breech delivery

- Demonstrated a scenario with an *unexpected* breech presentation
- Use SimMom or Sophie and her Mum with a standardized patient
- Debrief and discuss
https://sykepleien.no/mediegalleri/jordmorstudent-over-pa-setefodsel
My experience

Shoulder dystocia

- Demonstrated a scenario with *shoulder dystocia*
- Used SimMom or Sophie and her Mum with a standardized patient
- Discuss and debrief
When do we simulate?

- In *pre-service education* (before graduation)
- *In-service education* (after graduation)
- *Everyday life* in clinical work
How?

Pre-service education:
• All the different (emergency) topics in obstetrics (e.g. PPH, shoulder dystocia, breech)

In-service education:
• Choose different focused and actual topics

Can be done in a simple environment or in a sophisticated simulation/skill-lab
The impact of maternal mortality...

https://www.bing.com/videos/search?q=maternal+death+&&view=detail&mid=845675F1E331EB868DD3845675F1E331EB868DD3&&FORM=VRDGAR
Thanks for listening
References


5. The World Bank Data/ Health Indicators https://data.worldbank.org/indicator