

## AB024. Digitalization in a technological environment, a pediatric operating theater

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**Abstract:** We all know that the digitalization is here to stay, so also in the children's operating theater. We also know that effective teamwork is crucial for safe surgery. Changes in demographic trends and new surgical and technological innovations require close collaboration with other disciplines for a number of reasons (Dekker, 2014). Despite the advances in technology, making healthcare safer depends, not on minimizing the human contribution but on understanding how people, look ahead, overcome hazards and, in effect, create safety (Vincent, 2011). This is very true in a high technological environment that has become utterly specialized and digitalized during the last decade. As the technical devices becomes more and more complex, we require another approach for interprofessional collaboration in the operating theater to keep the child safe during the operation. Especially a breakdown in communication, poor teamwork, lack of leadership and poor decision making by individuals and teams have all been shown to be major contributors to adverse events (O'Dea *et al.*, 2014). In the operating theater it is the operating nurse who has the responsibility for the caring situation. She is observing; following in detail the child's caring needs and providing relevant and sufficient care, while surgeons provide expert medical support for monitoring the course of the operation. In a critical situation, where technology fails or the patient status changes in an unexpected way, surgeons

immediately start to search for medical or technological problems while operating nurses immediately direct his or her concentration on the child. Accurately according to their training and competencies, but at the same time, they interfere with the same patient and in the same situation. As they are sharing the situation it can be assumed that both their interaction and communication become a vital factor that influences the outcome of critical situations and the patient's wellness. In such a situation doubtful concepts and hints can be misinterpreted (Eddy, Jordan, & Stephenson, 2016). With this in mind, the caring context, as well as the system in which caring, and technology interact, become an essential aspect for continuing training in teamwork in an authentic context to enhance patient safety. In acute situations verbal communication is vital for optimizing teamwork (Brindley & Reynolds, 2011). However, the difficulties in communication may be summarized in the phrase "meant is not said, said is not heard, heard is not understood, understood is not done" (Rall & Gaba, 2005, s. 3053). Verbal communication can be affected by stress and uncertainty that can lead to a tendency not to express what is thought. In communication, the words spoken and how they are understood by others change depending on stress, workload, culture, experience and the profession they involved in the event, which can lead to different assumptions and unwanted decisions. Another risk in acute situations is to be discontinued, which increases the risk of losing focus on the current situation (Brindley & Reynolds, 2011). We also know that teamwork is influenced by culture and expectations and that teamwork training gives better results. Where effective communication is one important part of team work (Schmutz & Manser, 2013; Shekelle, *et al.*, 2013). Various experiences affect how we work in teams, by providing training opportunities, every employee can develop. We also know that successful teamwork is based on respect and trust between its members. Everyone in the team should express their views in the group, which can be developed through collaboration and practice (Eddy, Jordan, & Stephenson, 2016). In order to be a team, we also need to train as a team, talk as team in an authentic context with authentic technological devices surrounding us. Otherwise there is a risk that we in a critical phase use a more cautious language based on an unwillingness to be seen as a rude, and unwillingly become a patient safety risk.

In contradiction with the knowledge that communication in a stressful situation mean to be specific, restrict the information to what is necessary, express phenomena clearly, ask for a receipt, i.e. closed loop communication which confirms that your colleague was susceptible and understood the information correctly.

**Keywords:** Parent's; perioperative nursing; participation; perioperative

nurse; operation

doi: 10.21037/pm.2020.AB024

**Cite this abstract as:** Mattsson J. Digitalization in a technological environment, a pediatric operating theater. *Pediatr Med* 2020;3:AB024.