

MITE Monthly Tip

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Rebecca Harvey, MD

Tips for Teaching Procedural Skills: The Walker Peyton Process and Beyond

Acquisition of procedural skills is an important component of education across the spectrum of health care professions. Such skills range from the fundamentals of appropriate handwashing, to maintenance of sterile technique, to complicated multi-step surgeries in the operating room. Traditionally, procedures were taught using a “see one, do one, teach one” approach. A teacher demonstrates and describes a procedure and afterwards a learner practices the procedure prior to teaching the procedure to another learner. A more sophisticated teaching approach for the acquisition of procedural skills was first presented by Walker and Peyton and has subsequently been expanded upon. (Walker and Peyton 1998). Walker-Peyton teaching approach is a stepwise teaching approach that consists of four basic steps. This approach is one that has applicability to the teaching of skills across the spectrum of health care environments, as well as within operating room.

Prior to discussing the Walker Peyton Process in further detail, it can be useful to think about the process of learning procedural skills as occurring in three phases:

1. Cognitive
2. Practice fixation
3. Autonomy

Within this framework, procedural skills are learned in stages starting with a big picture concept of the skill and its place in clinical care. This is the cognitive phase. Next, the skill becomes fixed through deliberate practice with specific and constructive feedback based on observation. This is practice fixation. Autonomous practice is reached after further practice and exposure in settings of increased complexity. This is not dissimilar to the way in which a skill such as learning to drive or riding a bike is achieved. Each stage of the Peyton-Walker Method will tie into the three phases (cognitive, practice fixation, autonomy) of learning procedural skills.

So what are the Peyton Walker Stages of Teaching Procedural Skills?

Stage 1 Demonstration: the teacher performs the skill at normal speed without commentary

Stage 2 Deconstruction: the teacher performs the skill slowly with commentary

Stage 3 Comprehension: the learner instructs the teacher who performs the skill

Stage 4 Performance: the learner performs the skill, articulating the key steps before doing them.

In 2001, George and Doto added a preceding step of providing an overview of the relevance of the skill to healthcare and patient care prior to initiating the Peyton Walker process. This sets a framework that more fully captures the essence of adult learning. (George and Doto 2001)

The stages of the Peyton Walker Process are best conceptualized as a cyclical rather than linear process, where repeated performance under supervision is what is ultimately needed to develop expertise. Depending on prior knowledge and skill, a teacher may opt to guide a learner to enter the cycle at any one of the four stages and move between stages depending on learning needs, goals, or fears. This Furthermore, depending on the complexity of the skill and the temporal time frame in which a learner is exposed to a skill, the process may occur episodically or longitudinally.

More recently, Sawyer et al. developed a six-step approach to teaching a skill that combines preparation, skill acquisition, and maintenance of the skill: “Learn, See, Practice, Prove, Do, Maintain” This six-step approach uses adult learning theory to reinforce the need for the development, assessment and maintenance of procedural skills and also integrates the use of simulation in skill acquisition. (Sawyer and Taylor 2015).

Stages of “Learn, See, Practice, Prove, Do, Maintain”

1. Learn: knowledge acquisition
2. See: observation of the procedure
3. Practice: deliberate practice using simulation
4. Prove: competency is assessed
5. Do: the procedure is performed on a patient, with direct supervision until the learner is entrusted to perform the procedure independently
6. Maintain: continued clinical practice, supplemented by simulation-based training.

Conclusions and practical tips for teaching procedural skills:

As health care educators we are expected to provide opportunities for students and trainees to learn procedural skills. This is a complex and delicate balance of support and challenge, autonomy and supervision, patient safety and clinical care. Simulation has emerged an excellent adjunctive and foundational tool to help learners practice, achieve and maintain skills. As teachers, we must help to ensure patient, learner, and staff safety which managing the transition of learning in a simulated environment to one of performance in direct clinical practice. The Peyton Walker Process as well as the “Learn, See, Practice, Prove, Do, Maintain” provide an excellent organizational and functional framework for facilitating the learning cycle associated with procedural and skill acquisition within medicine.

Remember the following tips when taking learners through the cycle of procedural skill acquisition:

1. Assess the learners prior skills
2. Direct the learner to enter learning cycle at appropriate stage
3. Explore learners fears and target appropriate support
4. Supervise learning cycle and ensure patient, learner, staff safety
5. Facilitate learner reflection
6. Provide feedback to learners in a safe and timely manner
7. Integrate simulation when possible as means to facilitate and reinforce skill

References:

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