Abstract 11

Title: Impact of a Neonatal Resuscitation Curriculum on Knowledge, Skills and Attitudes of Health Professions Learners

Background:
Approximately 10% of newborns will require resuscitation interventions by skilled healthcare workers in delivery rooms across the United States. Though the American Academy of Pediatrics and American Heart Association provide certification for these workers on a two-yearly basis, this program is only available at graduation, to health professions learners who chose a career path requiring neonatal resuscitation skills.

Objectives:
To implement and evaluate the impact of a neonatal resuscitation (NR) curriculum on knowledge, skills and attitudes of healthcare professions learners.

Methods/Design:
Approval was obtained from our institution's review board. We designed a web based, interactive neonatal resuscitation curriculum for health professions learners such as medical (MD) and physician assistant students who rotate through the Neonatal Intensive Care Unit (NICU). This curriculum is made up of: 1) a pretest which assesses prior knowledge of NR, 2) teaching modules which review the five key areas of NR (airway management, cardiopulmonary resuscitation, vascular access, medications and pneumothorax evacuation), 3) an interactive video of a mock neonatal resuscitation, 4) a posttest.
Prior to completing the post test, learners participate in a simulated event where they lead team members through NR, utilizing a high-fidelity mannequin. Performance during this simulation was recorded on a checklist. Students' perception on skills, communication and roles and responsibility were also assessed.

Results:
Twenty one learners completed the NR Curriculum and Simulation.
The average Pretest/Posttest test scores were 12.1/16.1(SD 3.3/1.6) and 12.8/14/6 (SD 2.6/1.1) for MD and PA students, respectively. These scores represent an average learning gain score of 47% for MD students and 12% for PA students.
During simulation, skills performance score range was 60-100% for MD students and 65-80% for PA students.
Perception survey response rate was 57%. All learners strongly agreed or agreed that they are now able to perform the components of neonatal resuscitation and are confident in leading a team. 92% of learners strongly agreed or agreed that the simulation helped their communication skills and anticipation of needs of their team members. 83% of learners strongly agreed or agreed that it helped their understanding of roles and responsibilities during a neonatal resuscitation.

Conclusions:
The neonatal simulation curriculum improved knowledge, skills and attitudes of healthcare professions learners.

References:

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