Endotracheal intubation in inter-professional neonatal emergencies simulation workshops versus neonatal resuscitation program courses

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Introduction & Aim: The use of simulation during the Neonatal Resuscitation Program (NRP) course allows clinicians to solidify their cognitive skills, practice their technical skills and improve their behavioral skills to optimize communication, teamwork and patient safety. Maintaining resuscitation skill requires continuous practice, supplemented by simulation maintenance training as needed. The aim of the study is to assess the inter-professional simulation outcome in the decision making, timing and skills of neonatal endotracheal intubation. The study compares the outcome in those with and without Neonatal Resuscitation Program (NRP) certification.

Method: The Mobile Pediatric Simulation (MPS) team conducted two inter-professional multiphasic hands on neonatal emergencies simulation workshops in Qatar and Egypt. We used the online survey tool to measure the effectiveness of the workshops, surveys were sent to the attendees immediately after the workshops. The survey defines the NRP certification but the identities of the responders were not disclosed.

Results: We received 22 questionnaire’s responses from different levels of the attendees. Half of them only are NRP certified. There was a highly positive correlation between the pre and post workshop neonatal intubation decision making, timing (R=0.83) and hand skills (R=0.82). Unexpectedly, there was no significant correlation between those who have a valid NRP certification and those who do not regarding the intubation hand skills, timing and decision making.

Conclusion: It is concluded that the inter-professional hands on neonatal emergencies simulation workshops were very effective and essential learning tools to improve the decision making, timing and skills of neonatal endotracheal intubation. It is an essential adjuvant tool for the NRP to promptly save lives and enhance the patient safety.

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