

Impact of manikin based training on interns

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Abstract :

Newborn care is a crucial challenge that is faced by every health professional dealing with maternal and child health. Navjaat Shishu Suraksha Karyakram (NSSK) is a simple training module based on basic newborn care and resuscitation using manikins. Training of doctors and nurses with appropriate knowledge and skill of neonatal resuscitation is very important to improve the quality of newborn survival.

Material and Methods:

We conducted NSSK training for interns at Maharashtra University of Health Sciences, Pune Regional Centre. They were given pre- test which included written evaluation and performance evaluation based on standard NSSK module prepared by Ministry of Health and Family Welfare, Government of India and Indian Academy of Pediatrics. The workshop methodology included lectures, demonstrations, and videos and individual practice on manikins. This was followed by performance evaluation and post test (written) based on format given in NSSK module.

Results: The participants expressed their level of confidence in handling newborns improved after this training and commented about the methodology of training as excellent. The best part of the training was Kangaroo mother care .The participants opined that this type of training given in initial period of internship will be really useful.

Conclusion: Manikin based workshops helped the participants to increase the confidence level in handling newborns.

Keywords : NSSK, manikin, performance evaluation test, health professionals

Introduction:

Newborn care is a crucial challenge that is faced by every health professional dealing with maternal and child health. Navjaat Shishu Suraksha Karyakram (NSSK)" a simple training module based on basic newborn care and resuscitation using manikins was used for the workshop [1].Training of doctors and nurses with appropriate knowledge and skill of neonatal resuscitation is very important to improve the quality of newborn survival. NSSK training is launched by Ministry of Health and Family Welfare, Government of India in collaboration with Indian Academy of Pediatrics for medical officers and nurses. This training is well received and appreciated by them. We have introduced this training during internship for the first time. This study explores the effectiveness of NSSK training using manikins for imparting neonatal resuscitation skills to interns.

Material and methods:

We conducted NSSK training for interns (n= 69) at Maharashtra University of Health Sciences, Pune Regional Centre in two batches. They were given pre test which included written evaluation and performance evaluation based on the standard format given in NSSK module. The workshop methodology included lectures, module reading, demonstrations, videos and individual practice on manikins in groups. There was a large group teaching in the form of lectures followed by small group discussion in the form of module reading, demonstrations on manikins and individual practice. At the end of all the sessions, post test was given which included written test and performance evaluation test as per NSSK module.

Results:

The participants appreciated NSSK training. Participants (90%) expressed their confidence in handling newborns improved after training on manikins. The participants commented about the methodology of training as excellent. They appreciated videos, demonstrations, systematic and individual approach. The best part of the

training was Kangaroo mother care. The participants opined that this type of training on manikins given in initial period of internship will be really useful in their real life scenarios like conducting deliveries. The workshop also helped in active thinking.

Table I & II shows performance evaluation of the participants which was conducted before & after workshop which included present newborn care practices, preparation of delivery, newborn resuscitation, hand washing technique, temperature maintenance etc. The graph shows performance of the participants which was poor in the pretest improved markedly in the post test.

Results: Table I : before and after workshop

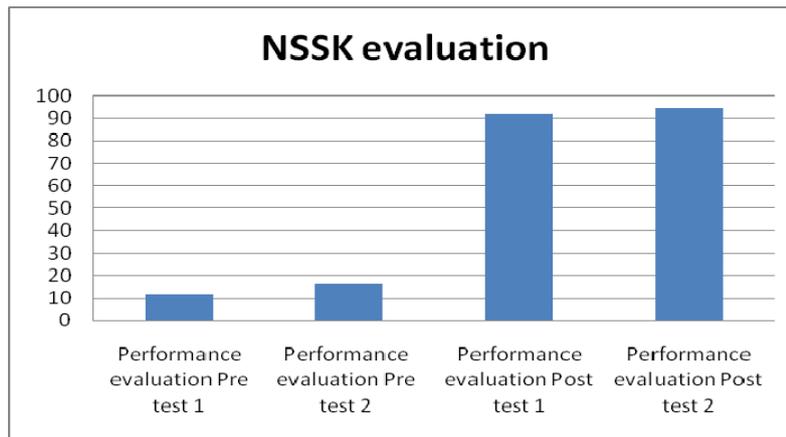
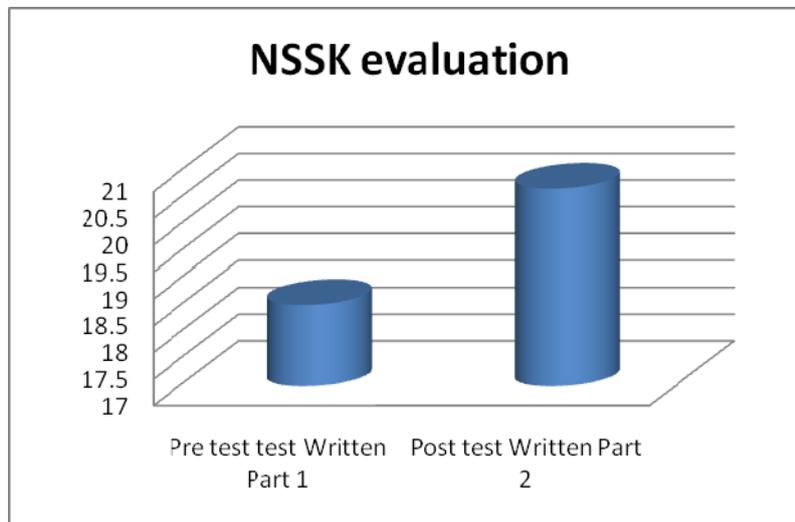


Table II : before and after workshop



. Discussion:

Qualified doctors with good clinical reasoning skills and confidence would be expected to be competent in handling deliveries and neonatal resuscitation after having practiced mainly with manikins. Using manikins is a practical and safe approach to the acquisition and maintenance of task-oriented skills in medical specialties. “See one, do one, teach one” are the best approaches to the acquisition of health care related knowledge, skills and abilities. Due to the increasingly complex and unpredictable nature of contemporary healthcare

environments teaching these types of skills is challenging and clinical educators often do not have time to think through clinical problems with students' appropriate learning opportunities for medical students [2,3]. One strategy that is being adopted is the use of simulation technologies. Although there are numerous definitions of simulation, the one described by Gaba [4] has been accepted in this context. Simulation is a technique used "to replace or amplify real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner". Medical simulation helps to augment didactic instruction and hands-on experience in a safe environment without harming real patients. In NSSK training we have used manikins along with different imaginary case scenarios to impart knowledge and skills to the participants. Evidence indicates that the use of simulation achieves quality outcomes where the potential for error and large-scale disaster is high [5]. The first available documented evidence on the use of human patient simulation manikins (HPSMs) in clinical education was in 1969 when Denson and Abrahamson used 'Sim One'™ to supplement the training of anesthetists [6, 7]. Since then, various HPSMs have been developed and are currently used in specialist medical fields like anesthesia and critical care and more recently in undergraduate nursing and allied health programs [8, 9]. This paper highlights use of manikins and simulation techniques in internship which give skills in addition to knowledge which is critical in medical practice particularly in newborn care and resuscitation.

Conclusion:

Manikin based training along with videos, lectures, demonstrations used in NSSK workshop is useful in improving newborn resuscitation skills in interns which will be really useful in their clinical practice. Though a small study, it is worth to consider introducing these type skill based workshops in undergraduate curriculum which will go a long way in improving neonatal care.

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