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Research Paper Education

Interdisciplinary Mannequins with Moulage A Useful Labour Care Teaching Tool for Medical Graduate

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ABSTRACT

Application of moulage to static mannequins, allows the learner improve their skills.

Aim : To evaluate simulation-based teaching in labour care using mannequins .

To assess confidence& competence after using simulators and to assess faculty perception

Materials & Method: One hundred students were participating. Clinical scenarios depicting normal process of labour and emergencies were kept in 12 stations . In each station students were given group discussion and hands on exercise . Knowledge and skill gaind through workshop were assessed

Results : Knowledge gained by group discussion was 90%. Skills learned were assessed by task specific check list and on an average was it was 77% in various tasks. Confidence gained through workshop was 76%.Workshop was rating was 91%. Faculty felt that workshop as effective education tool.

Conclusion: - Students expressed that the scenarios with Moulageapplication to static manikins afforded a greater sense of reality and was an interesting teaching tool for undergraduates.

KEYWORDS : - Mannequins, Simulator , Education . Scenarios with Moulage

Introduction:

Bridging the gap between theoretical knowledge and practical application has been problematical in few clinical condition. There is a need to integrate practice and theory and recent innovations in medical curriculum focuses on this. Faculty should teach students to "know how" rather than to "know all".

Mannequin enables learners, to practice and develop clinical skills without any fear of harm to patients. Other benefits include increase in retention and accuracy, allows repetition. Application of moulage to static mannequin, improves the realism of the simulation, allows the learner to use visual clues to assess the patient in reality and improve their skills. This workshop focuses on utilizing techniques that are low cost and can be created quickly . By applying these techniques learner easily acquire skills

Aim :

To evaluate the use of simulation-based teaching for medical undergraduates in labour care &obstetric emergency using mannequins, moulage.

To assess self reported confidence & competence using scenario based simulators

To assess faculty perception.

Materials & Methods:

One hundred students were participating. There were 12 stations with clinical scenarios depicting normal process of labour and emergencies during labour. In each station students were given group discussion, then hands on exercise were given. In each station mannequins were incorporated whenever needed and they were allowed to suture in low cost simulator to practice episiotomy suturing for 30 to 45 minutes. Student's confidence and competence before and after the workshop was assessed by self-assessment questionnaire. Knowledge gained through workshop was evaluated by Pretests and Post test. Value of workshop assessed by tabulation method.

Results :

Table 1 indicates Knowledge gained by group discussion 90%.

Table2 indicates Task specific check list namely Plotting Partogram was good in 67%, very good in21%, fair in 12%.

Fig 1- Episiotomy suturing done in low cost simulator

This task was good in 74%, very good in 14%, fair in 12%. Placental removal was 68% good, 22%very good and 10% fair.

Fig 2- Application of NASG

This task was 77% good, 14% very good and 9 % fair. Neonatal resuscitation was good in 77%, very good in 12% and fair in 11% .

Fig3 Skills learned by mannequins with moulage

This task was very good 21% good 67% fair 12% .Confidence gained was 76% through workshop was assessed by selfassessment

Table 3 Indicates Procedure based assessment

This was done to assess student's performance and 82% of them were able to do without supervision and 12% required supervision. Value of workshop rated by students was as high as 91% .In 82%, Faculty perception was valuable and effective education tool

Discussion :

In our study knowledge gained by the student was 90% and in Rosemarie et al study [1] 98% students agreed that they learned relevant materials. Comprehensive knowledge and confidence gained by students through our workshop was 88% and in Rosemarie et al study [1] 90% of students felt, with mannequins their learning capacity was better . In Gordon et al study 85% students rated simulators education good and in our study workshop was rated 91%.Eight two percentage of the faculty rated our workshop as effective educative tool which is similar to Gordon at al[2] study. Through interdisciplinary workshop we were able to teach multiple objectives ,which was similar to Schoening et al[3] Students gave extremely positive feedback for our workshop as in Dr.JenniferMacDowall[4] study.Students were able to perform certain procedures without supervision in 82% and similar statement was given by Yasuharu Okuda etal [5] that residents trained by simulators had improvement in procedural performance.

Conclusion :

" I hear and forget, I see and I remember, I do and I understand." Yes it is true.

This study demonstrates that medical students value Mannequine-based learning highly. In particular, they value the opportunity to apply their theoretical knowledge in a safe and realistic setting, to develop teamwork ,skills and to develop a systematic approach to a problem. A Moulage is a valuable educational tool in medical undergraduate education. Students indicated that the scenarios with Mou-

lage application to static manikins afforded a greater sense of reality and was an interesting teaching tool for undergraduates. Workshop (Mock) serves as a bridge between class room learning and real clinical situations. This workshop was a simple, efficient, comprehensive, valuable and enjoyable teaching tool for both faculty and student.

Table 1 - Knowledge gained by group discussion

Pre test	Post test
62%	88%

Table 2.Skilled learned by mannequins, , suturing in low cost simulators -Task Specific

Task	V.Good	Good	Fair
Plotting Partogram	21%	67%	12%
Episiotomy suture practiced	14%	74%	12%
Placental Removal	21%	67%	12%
For-PPH-Uterine Tamponed	13%	78%	9%
Forceps application	22%	68%	10%
Application of NASG-for shock patient	14%	77%	9%
Neonatal resuscitation	12%	77%	11%

Table3: Assessing the students ,performing the procedures

With supervision	Without supervision
18%	82%

Figures:

Fig 1 Low cost Episiotomy simulator

Fig2 -Application of NASG

Fig 3-Moulage to static mannequin

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