

ABSTRACT

Background: Medical records at Webuye District Hospital indicate that over 80% of the neonates delivered by caesarean section for fetal distress registered APGAR scores of ≥ 7 in 5 minutes, in 2007. A baseline chart audit for the same year revealed that only 44% of the caesarean interventions for fetal distress met the diagnostic recommendations for the operation, yet the procedure is associated with numerous risks especially in the third world. A tailored educational intervention designed using 'evidence-based' principles can improve health providers' knowledge, attitudes and practices on diagnosis and management of fetal distress.

Objective: To evaluate the effectiveness of a multifaceted educational intervention for doctors and nurses, on competence and prescription patterns in the management of fetal distress.

Setting: Webuye District Hospital maternity unit.

Study design: Pre-/post quasi-experimental design.

Subjects: All doctors and nurses working in the maternity unit were eligible for participation, if they gave informed consent.

Intervention: A 1-hour didactic session followed a week later by two sequential small group discussions and feedback sessions, spaced 1 week apart, each lasting 1 hour. Reminders were provided. The intervention was tailored to the training needs identified from baseline questionnaires and chart audit.

Outcome measures: Pre-tested baseline and follow-up questionnaires were administered before, and at 8 months post-intervention to assess change in knowledge and attitude scores, as well as change in self-reported practices. Negative marking was done for knowledge scores. A baseline chart audit for 2007 and a follow up audit for 2009 were used to assess actual practice change. The chart audits were conducted at comparable times of the year. Statistical analysis was done using SPSS version 12.01. Baseline and follow up mean scores were compared using Student's t-test, and proportions of practice indicators compared using chi-square test. A p-value of less than 0.05 was considered statistically significant for all analyses.

Results: A total of 46 participants (19 doctors and 27 nurses) were recruited. Of these, 42 participants (18 doctors and 24 nurses) completed all phases of the evaluation. Results were related to recommended guidelines. Overall, mean percent knowledge scores (SD) on 'diagnosis' and 'management' of fetal distress improved from 40.11(14.39) to 56.48(16.41) and 36.93(12.28) to 65.29(16.59) respectively. There was however, a statistically insignificant improvement in the overall attitude scores (SD) from 9.5(3.06) to 10.74(3.51), with a maximum possible score of 20. Of the six parameters used to assess change in self-reported practices, there was a significant improvement in three out of the four prescribing behaviors whose baseline scores were low. With respect to the actual practice change, there was a significant improvement in three out of five prescribing indicators that had low baseline scores. Adherence to guidelines before prescription of caesarean section improved marginally from 44% to 58%, $p=0.073$.

Conclusion: A tailored multifaceted educational intervention significantly improved the health providers' knowledge and most of the practice patterns in the management of fetal distress. This was sustained for at least 8 months. There was however, no statistically significant improvement in attitudes.