

Assess the Effectiveness of Safe Delivery App in Terms of Midwifery Competencies among Nursing Students of Selected Nursing Colleges of Haryana: A Pilot Study

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ABSTRACT

Introduction: Competency-based midwifery education is essential for ensuring safe maternal and newborn care. Digital tools like the safe delivery app help improve nursing students' knowledge, clinical skills, and decision-making abilities. Continuous skill reinforcement is important for effective training in midwifery. Proper preparation of future midwives is vital for improving the quality of maternal and newborn health services and outcomes.

Aim: To assess the effectiveness of the safe delivery app on clinical competencies (knowledge, clinical skills, and clinical decision-making ability) among nursing students.

Materials and Methods: A pilot quasi-experimental study with a non-equivalent control group pre-test-post-test design was conducted among nursing students selected through purposive sampling. Participants were divided into experimental and comparison groups. Sample size will be 90 participants for final study. Data were collected using a structured knowledge questionnaire, a clinical decision-making questionnaire, and an observational checklist for skills assessment through OSCE. The experimental group received safe delivery app, while the comparison group received conventional teaching. Data were analysed using descriptive and inferential statistics (Chi-square test, t-test, ANOVA,

Correlation test) including independent t-test, paired t-test, and Pearson's correlation coefficient.

Results: The findings of the pilot study revealed that there was no significant difference in pre-test knowledge, clinical decision-making ability and skills scores between the experimental and comparison groups ($p > 0.05$). However, a significant improvement in post-test knowledge ($t=6.17$, $p=0.0001$) clinical decision-making ability ($t=5.13$, $p=0.0003$) and skills ($t=2.24$, $p=0.04$) was observed in the experimental group compared to the comparison group. Paired t-test results also showed significant improvement between pre-test and post-test scores within the experimental group. Majority of nursing students (70%) reported high satisfaction with the app.

Conclusion: The study concludes that the safe delivery app is effective in improving midwifery competencies (knowledge, clinical decision-making ability and skills) among nursing students. The experimental group showed significant improvement in post-test scores compared to the comparison group. Students also reported a good satisfaction regarding safe delivery app for improving midwifery competencies regarding maternal and newborn care.

Keywords: Clinical decision-making, Maternal and newborn care, Mobile learning.

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