Assessing the Impact of Horizontal Integration on Clinical Education Outcomes for Perioperative Nursing Students

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Introduction: The traditional Perioperative Nurse curriculum in Iran separates theoretical courses from clinical internships, creating a gap that negatively impacts students' learning and practical performance. The present study was conducted to assess the impact of horizontal integration on the outcomes of clinical education among Perioperative Nurse students.

Materials and Methods: The present study was an educational intervention study that was conducted after receiving a code of ethics (IR.IUMS.REC.1401.525) from the Ethics Committee of Iran University of Medical Sciences in 2022. In the present quasi-experimental study, 80 students of Perioperative Nurse were randomly assigned to two matched groups. One group received horizontally integrated education, while the other received an education based on the traditional apprenticeship model. The educational outcomes were assessed in terms of theoretical knowledge and clinical skills using MCQs and OSCEs, respectively. For data analysis, SPSS version 22 was used, and the level of significance was set at $p < 0.05$.

Results: In the intervention group, there was a significant improvement in theoretical knowledge and clinical skills, with mean score increases of 75.3% (from 9.1 ± 2.4 to 15.96 ± 2.02; p = 0.001) and 68.7% (from 10.40 ± 3.23 to 17.55 ± 2.23; p = 0.001), respectively. By contrast, the control group showed minimal and statistically insignificant improvements in knowledge (26.0%, from 8.9 ± 2.22 to 11.2 ± 2.18; p = 0.13) and clinical skills (10.6%, from 10.88 ± 2.87 to 12.03 ± 2.69; p = 0.57). Effect sizes indicated a strong impact of horizontal integration on both outcomes.

Conclusion: The results indicate that horizontal integration enhances knowledge acquisition and clinical skills in students of Perioperative Nurse, hence serving as a potential alternative to traditional approaches. This can be integrated into the curriculum for Perioperative Nurse to enhance learning outcomes and better prepare the students for clinical environments.

Keywords: Horizontal integration, Perioperative Nursing education, Clinical skills, Theoretical knowledge, Task-based learning