Immediate knowledge retention among nursing students in live lecture and lecture: A quasi-experimental study

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Aim/Objective: To determine if video-recorded lecture provided better immediate knowledge retention than live lecture

Background: In line with the call to increase nationally graduated nurses as recommended by KSU 2030 Vision, educational institutions in Saudi Arabia are required to increase the enrollment to the Bachelor of Science in Nursing program. As a result, there is increased number of sections or groupings which created a need for additional faculty. However, to mitigate the impact of faculty shortage, the Administration embarked on exploring innovative teaching strategies that would ensure that lecture contents across groups of students are uniform and instructions are similar. Hence there is a need to explore innovative teaching strategies that would ensure that contents across groups of students are uniform, and instructions are similar.

Design: The study employed a quasi-experimental design to examine if video-recorded lectures provided better immediate knowledge retention than live lectures.

Methods: A total of 160 s -year nursing students were randomly assigned to either of the two teaching strategies (video-recorded lecture or live lecture). Data were collected at a public university in Riyadh, Saudi Arabia. Both lectures covered the interpretation of arterial blood gases (ABG) and all students had no prior knowledge on the subject. Pretest and posttest using the same 16 questions were administered to both groups. Each item was comprised of a combination of ABG results. Students were to choose the correct answer from four choices of interpretations of the ABG result. ABG is assessed to determine gas exchange, ventilator control and acid-base balance among patients with acute or chronic illnesses. Assessment of immediate knowledge retention was conducted using a questionnaire comprised of 16 multiple-choice items to be used in both the pretest and posttest. Each item was comprised of a combination of ABG results.

Results: The live lecture group's posttest mean score did not differ significantly from that of the video-recorded lecture group; $t (156.52) = 0.47$, $p = 0.64$, $d = —0.08$. The odds ratio is 1.27 and the probability is 95%. CI:.64, 2.50.

Conclusion: This study found no difference between video-recorded lectures and live lectures in terms of providing immediate knowledge retention. Video-recorded lectures are a viable complementary teaching strat- egy. There is a need to enhance the instructional design so that learning objectives are more clearly defined, contents are aligned with the learning objectives, teaching strategies should include active participation from learners and outcomes should be assessed based on the learning objectives.

Biography

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