Comparison of the effectiveness of two teaching methods of storytelling and interactive lecturing on long-term memory of Anesthesia Technology students

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Background

Memorization involves storing and retrieving learned information, and effective teaching methods are crucial for this process. This study compared the effects of storytelling and interactive lecturing on the long-term memory of Anesthesia Technology students, highlighting the importance of memory in medical science education.

Methods

This quasi-experimental study used a pretest and two post-test designs. An immediate post-test followed weekly teaching sessions for 1 month to evaluate short-term retention, while a delayed post-test assessed long-term memory 3 weeks later. In 2023, a study with 52 undergraduate Anesthesia Technology students at Iran and Tehran University of Medical Sciences compared two teaching methods: storytelling (n = 31) and interactive lecturing (n = 21). Three tests were conducted: a preliminary test, an immediate post-test for short-term evaluation, and a delayed post-test for long-term evaluation 3 weeks later. This study utilized descriptive statistics (mean, standard deviation, frequency) to summarize demographic data and applied inferential tests (paired t-tests, independent t-tests, repeated measures tests) to evaluate research hypotheses and relationships between variables.

Results

Statistical analysis revealed no significant demographic differences between groups. The findings indicated a significant difference in long-term memory retention, with the storytelling method leading to higher scores in delayed post-tests compared to the interactive lecturing approach ($t = 3.388$, $P < 0.001$). These results demonstrate that storytelling is more effective in enhancing long-term memory retention among students.

Conclusion

The storytelling approach greatly improves long-term memory retention among Anesthesia Technology students in comparison to the interactive lecturing method. It is recommended to implement this approach to promote meaningful learning and improve patient management in both medical and paramedical disciplines.

Keywords

Active teaching, anesthesia, interactive lecturing, long-term memory, narration, storytelling

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