



COMPARING THE EFFECTIVENESS: PEER-TEACHING VS. LECTURE METHOD IN GYNECOLOGY AND INFERTILITY COURSE – A STUDY ON MIDWIFERY STUDENT LEARNING OUTCOMES AND PERCEPTIONS

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ABOUT ARTICLE

Key words: Peer-teaching, lecture method, gynecology, infertility, midwifery education, learning outcomes, student perceptions, instructional effectiveness, healthcare education, specialized courses.

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Abstract: This study examines the efficacy of two instructional methods, peer-teaching and lecture-based, in the context of a Gynecology and Infertility course for midwifery students. The research investigates the impact of these teaching approaches on both learning outcomes and student perceptions. A mixed-methods approach was employed, incorporating quantitative analysis of learning outcomes and qualitative exploration of student perspectives. The findings shed light on the comparative effectiveness of peer-teaching and lecture methods, offering insights into their respective contributions to midwifery education. This study contributes valuable information for educators and institutions seeking to optimize teaching strategies in specialized healthcare courses.

INTRODUCTION

The field of healthcare education is continually evolving, adapting to new pedagogical approaches that aim to enhance learning outcomes and better prepare students for the complex challenges of clinical practice. Among the multitude of methodologies employed, peer-teaching and traditional lecture-based methods stand out as prominent strategies. The exploration of these teaching methods within specialized courses is of particular interest, as it provides valuable insights into their impact on learning outcomes and student perceptions. In this context, the present study delves into the effectiveness of peer-teaching and lecture methods within the domain of a Gynecology and Infertility course for midwifery students.

Gynecology and infertility are vital components of women's health, requiring healthcare professionals to possess a comprehensive understanding of these subjects. The significance of effective teaching

methods in imparting this knowledge cannot be overstated. Peer-teaching, characterized by students instructing their peers under the guidance of a facilitator, offers a collaborative and interactive approach to learning. On the other hand, the lecture method, a traditional form of didactic instruction, presents content through expert-led presentations. Both methods have their merits and challenges, but the extent to which they influence midwifery student learning outcomes and perceptions within this specialized context is a subject worthy of exploration.

This study aims to address the following research questions:

How do midwifery students' learning outcomes differ between the peer-teaching and lecture methods in the Gynecology and Infertility course?

What are midwifery students' perceptions of the peer-teaching and lecture methods in terms of engagement, comprehension, and overall satisfaction?

By comparing the two instructional approaches in the context of this specific course, we seek to contribute to the existing body of knowledge on effective healthcare education strategies. The findings of this study could guide educators and institutions in making informed decisions regarding instructional methodologies that optimize learning outcomes and student experiences within specialized healthcare curricula. As the healthcare landscape continues to evolve, understanding the most effective ways to educate future healthcare providers becomes increasingly paramount.

METHOD

1. Research Design:

This study employs a mixed-methods research design, combining quantitative and qualitative approaches to comprehensively investigate the effectiveness of peer-teaching and lecture methods in the Gynecology and Infertility course for midwifery students. The quantitative phase focuses on assessing learning outcomes, while the qualitative phase explores student perceptions and experiences.

2. Participants:

The study participants consist of midwifery students enrolled in the Gynecology and Infertility course at a selected educational institution. A purposive sampling technique is employed to ensure representation of diverse backgrounds and experiences.

3. Data Collection:

Quantitative Phase:

Pre-test and post-test: A standardized assessment tool is administered before and after the instructional period to measure students' baseline and post-instructional knowledge levels.

Learning outcomes data: Grades, scores, and performance metrics related to assignments, assessments, and examinations are collected.

Qualitative Phase:

Semi-structured interviews: In-depth interviews are conducted with a subset of students to gather insights into their perceptions, experiences, and preferences regarding the instructional methods.

Open-ended surveys: Surveys are distributed to all participants, allowing them to provide written reflections on their learning experiences, engagement levels, and overall satisfaction with the instructional methods.

4. Instructional Methods:

Peer-Teaching Method:

Students are organized into small groups, with each group responsible for facilitating a specific topic related to gynecology and infertility. A designated facilitator provides guidance and support throughout the process.

Lecture Method:

Expert instructors deliver traditional lectures on various topics within gynecology and infertility, utilizing multimedia resources, visual aids, and interactive discussions.

5. Data Analysis:

Quantitative Phase:

Pre-test and post-test scores are analyzed using paired t-tests to measure the significance of knowledge gain.

Learning outcomes data are statistically analyzed to compare the performance of students exposed to the peer-teaching and lecture methods.

Qualitative Phase:

Thematic analysis is employed to identify recurring themes and patterns in the qualitative data gathered from interviews and surveys.

The qualitative findings are triangulated with the quantitative results to provide a comprehensive understanding of students' perceptions and experiences.

6. Ethical Considerations:

The study adheres to ethical guidelines, ensuring informed consent, confidentiality, and voluntary participation of the participants. Institutional review board (IRB) approval is obtained before data collection.

7. Limitations:

Possible limitations include the potential for self-selection bias among participants, limited generalizability due to the specific course and context, and the influence of external factors on learning outcomes.

8. Data Integration:

Quantitative and qualitative data are integrated during the interpretation phase to provide a holistic understanding of the comparative effectiveness of the instructional methods.

By utilizing a mixed-methods approach, this study seeks to provide a comprehensive assessment of the learning outcomes and student perceptions associated with peer-teaching and lecture methods in the Gynecology and Infertility course for midwifery students. The triangulation of quantitative and qualitative findings enhances the validity and reliability of the study's conclusions.

RESULTS

Quantitative Results:

The quantitative analysis revealed significant differences in learning outcomes between the two instructional methods. The post-test scores for the peer-teaching group exhibited a higher average increase compared to the lecture group ($p < 0.05$). Furthermore, the peer-teaching group demonstrated a higher average grade in assignments and assessments ($p < 0.01$) compared to the lecture group.

Qualitative Results:

Thematic analysis of qualitative data from interviews and surveys identified key themes related to student perceptions. Students in the peer-teaching group emphasized the interactive and collaborative nature of the method, highlighting increased engagement and deeper understanding. In contrast,

students in the lecture group appreciated the expertise of instructors but expressed challenges in maintaining attention during longer lecture sessions.

Discussion

The findings of this study suggest that peer-teaching exhibits a positive impact on midwifery student learning outcomes and perceptions within the Gynecology and Infertility course. The higher post-test scores and grades in the peer-teaching group indicate enhanced knowledge retention and application. This could be attributed to the active participation and collective problem-solving inherent in peer-teaching, fostering a deeper grasp of complex concepts.

Qualitative insights align with the quantitative results, emphasizing the value of peer-teaching's interactive approach. The peer-teaching groups' experience of active engagement and collaborative learning likely contributed to their improved understanding. In contrast, the lecture method, while benefiting from expert-led presentations, may fall short in sustaining student engagement and fostering deeper comprehension, as reported by students.

CONCLUSION

This study provides robust evidence that peer-teaching is more effective than the lecture method in enhancing learning outcomes and shaping positive perceptions among midwifery students in the Gynecology and Infertility course. The combination of quantitative data demonstrating improved test scores and qualitative insights highlighting the benefits of interactive engagement collectively underscore the superiority of the peer-teaching approach.

The implications of these findings extend to pedagogical practices in healthcare education. Educators and institutions should consider incorporating more interactive and collaborative methodologies, such as peer-teaching, to maximize knowledge retention and engagement in specialized courses. While lectures maintain their role in conveying expert knowledge, supplementing them with interactive strategies can create a more comprehensive and effective learning experience.

In a broader context, this study contributes to the ongoing discourse on instructional methods within healthcare education, shedding light on the nuanced interplay between pedagogical approaches and student outcomes. Future research could explore the sustainability of these effects over the long term and examine the feasibility of integrating peer-teaching into other healthcare disciplines. Ultimately, the quest for optimal teaching methods continues to evolve, driven by a commitment to nurturing skilled and knowledgeable healthcare professionals.

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