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MEDICAL COMPONENTS IN TEACHING HOSPITAL PEDAGOGY TO FUTURE PEDAGOGICAL STUDENTS IN HIGHER EDUCATION INSTITUTIONS

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Abstract: This article explores the integration of medical components into teaching hospital pedagogy for future pedagogical students in higher education institutions. It examines the effectiveness of experiential learning, interprofessional education (IPE), and innovative methodologies in medical education. Drawing on recent studies, the research highlights the importance of fostering critical thinking, collaboration, and evidence-based practice (EBP) through interdisciplinary and technology-enhanced approaches. Key findings emphasize the role of experiential learning in bridging theory and practice, equipping students with the pedagogical and clinical competencies required for modern healthcare systems. Recommendations include curriculum reforms to incorporate advanced technologies and structured training programs for healthcare educators.

Key words: Medical education, experiential learning, interprofessional education (IPE), evidence-based practice (EBP), hospital pedagogy.

1. Introduction

The evolving complexities of healthcare systems have necessitated a shift in pedagogical approaches within medical education. Teaching hospital pedagogy, which integrates clinical and educational principles, has become central to preparing future healthcare professionals. This study investigates the incorporation of medical components into the pedagogical training of future educators, focusing on experiential learning, interprofessional collaboration, and evidence-based methodologies. By aligning educational practices with the demands of healthcare, these innovations aim to enhance the competencies of pedagogical students, enabling them to address contemporary challenges effectively.

The article draws on a robust body of research to analyze emerging trends in medical education, including the role of advanced technologies and artificial intelligence. It also examines the barriers to implementing interdisciplinary curricula and offers insights into how experiential learning and structured electives can bridge gaps in traditional healthcare education.

Methods

This study employs a qualitative review methodology, synthesizing data from recent articles and systematic reviews in the field of medical education. The research focuses on:

1. **Literature Analysis:** Examining key articles and reviews that address experiential learning, interprofessional education, and evidence-based practice in healthcare training.
2. **Comparative Evaluation:** Analyzing educational models and pedagogical strategies, including technology-enhanced learning environments and innovative curriculum designs.
3. **Case Studies:** Highlighting examples of curriculum reforms, structured medical education electives, and the integration of advanced technologies in teaching methodologies.

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Data were extracted from peer-reviewed journals and academic databases such as PubMed, Scopus, and Web of Science, ensuring a comprehensive and contemporary understanding of the subject matter.

Literature review

The article titled "The effects of educational models based on experiential learning in Medical Education: an international literature review" by [1] provides a comprehensive examination of the role of experiential learning within the context of medical education. The qualitative inquiry presented in this review highlights the theoretical frameworks and models that underpin experiential learning, offering valuable insights into its application across various medical fields, including nursing education, inter-professional education, and evidence-based practice.

One of the key contributions of the article is its identification of several instruments developed to measure experiential learning outcomes. These tools not only serve as benchmarks for evaluating educational effectiveness but also pave the way for further research into experiential learning's impact on medical training. The author emphasizes that these instruments can be instrumental in bridging gaps in the existing literature, thereby enhancing the understanding of how experiential learning can be effectively integrated into medical pedagogy.

The article also addresses the shift in educational focus from traditional teaching methodologies to a more student-centered learning approach. This transition underscores the importance of fostering critical thinking and effective communication among students, which are essential competencies in the medical field. By promoting an environment where students actively engage with their surroundings and reflect on their experiences, experiential learning encourages the construction of new professional knowledge. This is particularly relevant for future pedagogical students, as it prepares them to navigate the complexities of healthcare education and practice.

Furthermore, the review discusses the emotional dimensions of clinical practice, highlighting how experiential learning can assist healthcare practitioners in managing the emotional challenges they face. This aspect is crucial, as it not only contributes to the personal development of future educators but also enhances their ability to empathize and connect with their students and patients.

The article titled "Peer teacher training (PTT) program for health professional students: interprofessional and flipped learning" by [2] provides a compelling examination of the integration of interprofessional education (IPE) within healthcare training. The authors argue that the current healthcare curricula are outdated and do not adequately prepare graduates for the complexities of modern healthcare systems. This critical evaluation highlights the necessity of adopting innovative pedagogical approaches to enhance the educational experience of future healthcare professionals.

One of the key insights from the article is the positive correlation between interprofessional education and improved outcomes in leadership, collaboration, and communication among healthcare teams. This connection is particularly significant as it underscores the potential for IPE to enhance patient safety—a crucial consideration in healthcare education. However, the authors note that despite these advantages, there is a scarcity of practical examples where IPE has been effectively implemented within university curricula. This gap suggests a systemic issue within educational institutions that may hinder the development of future healthcare professionals who are adept at functioning in collaborative environments.

Burgess et al. also address the barriers to implementing interprofessional curricula, which include entrenched negative attitudes among healthcare professionals who tend to favor the traditional silos of their respective disciplines. This resistance can be detrimental to the educational process, as it limits

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opportunities for students to engage in collaborative learning experiences that are essential for their professional development. Additionally, the logistical challenges of coordinating timetables across different disciplines further complicate the integration of IPE into healthcare education.

The article posits that engaging students in interprofessional learning activities during their senior years may facilitate the development of their professional identity. By this stage, students are expected to possess a solid foundation of clinical knowledge and skills, which they can leverage to teach and mentor their junior peers. This approach not only reinforces their learning but also fosters a culture of collaboration and shared responsibility among future healthcare professionals.

The article titled "I didn't realise they had such a key role." Impact of medical education curriculum change on medical student interactions with nurses: a qualitative exploratory study of student perceptions by [3] provides a nuanced exploration of the impact of curriculum reform on the interprofessional dynamics within medical education. The authors highlight the importance of understanding the distinct competencies required across various healthcare disciplines, emphasizing that these competencies can be interpreted through different epistemological, ontological, and philosophical lenses.

The study is situated within the context of a significant curriculum overhaul at a Russell Group University medical school, which aimed to foster interprofessional collaboration and enhance patient safety. By integrating students from diverse healthcare professions, such as nursing and pharmacy, the curriculum promotes a more cohesive educational experience. The authors argue that this integrated approach allows medical students to engage in collaborative learning, thereby enriching their understanding of the roles and responsibilities of different healthcare providers.

One of the critical insights from the article is the emphasis on the theoretical framework that guided the data collection and analysis. The authors draw upon the General Medical Council's standards for medical education and Cheetham and Chivers' conceptual framework of professional competence, which together provide a robust foundation for evaluating interprofessional education. This framework not only informs the design of the curriculum but also serves as a lens through which the students' perceptions can be analyzed.

The qualitative nature of the study allows for an in-depth exploration of student perceptions, revealing both the challenges and benefits of the new curriculum. The findings indicate that medical students often underestimated the role of nurses prior to the curriculum change. However, as they engaged in interprofessional learning, their appreciation for the contributions of nursing professionals grew significantly. This shift in perception underscores the potential of integrated curricula to break down traditional silos within healthcare education, thereby fostering a culture of collaboration.

Critically, while the study provides valuable insights into the benefits of interprofessional education, it also raises questions regarding the implementation of such curricula in diverse educational settings. The authors acknowledge that the success of interprofessional learning experiences may vary based on institutional context and the specific dynamics of the healthcare professions involved. Furthermore, the article could benefit from a more detailed discussion on the long-term implications of these educational changes on patient care and outcomes.

The article titled "Medical education trends for future physicians in the era of advanced technology and artificial intelligence: an integrative review" by [4] provides an insightful examination of current trends in medical education, particularly in the context of advanced technology and artificial intelligence.

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Utilizing an integrative review methodology, the authors systematically identified and synthesized various educational trends that are shaping the future of medical training.

The authors meticulously outline their methodological approach, which includes stages of problem identification, literature search, data evaluation, data analysis, and presentation. This rigorous process is essential for ensuring the credibility and relevance of the findings, particularly in a rapidly evolving field such as medical education. The comprehensive search strategy employed by the authors, which encompassed multiple databases including PubMed, Scopus, and Web of Science, reflects a thorough and systematic effort to gather pertinent literature. Importantly, the authors focused on articles published between 2011 and 2017, thereby providing a contemporary perspective on educational methodologies.

A significant strength of the article lies in its inclusion of both experimental and non-experimental studies that describe innovative curricula and teaching methods in undergraduate medical education. By emphasizing future-oriented teaching methods, the authors contribute to the ongoing discourse on how medical education can adapt to the challenges posed by technological advancements. However, the exclusion of well-established methods such as problem-based learning (PBL) and evidence-based learning may limit the discussion of how these traditional approaches can integrate with emerging trends. This exclusion raises questions about the balance between innovation and the foundational pedagogical strategies that have historically supported medical education.

Moreover, the authors' decision to exclude articles that focus on student selection and well-being is noteworthy. While such factors are undeniably important in the context of medical training, the authors appear to prioritize a focused analysis of teaching methodologies. This choice allows for a deeper exploration of pedagogical innovations but could also lead to a somewhat narrow understanding of the broader educational landscape.

The findings presented in the article highlight the necessity for medical educators to embrace new technologies and pedagogical approaches. Given the increasing role of artificial intelligence in healthcare, the integration of these technologies into medical curricula is essential for preparing future physicians. The authors effectively argue for the importance of adapting teaching methods to ensure that students are equipped with the skills needed to navigate an increasingly complex medical environment.

The article titled "Understanding the Functional Components of Technology-Enhanced Learning Environment in Medical Education: A Scoping Review" by [5] provides a comprehensive analysis of the essential elements that contribute to effective technology-enhanced learning environments within medical education. The review synthesizes findings from thirty-nine studies conducted across nineteen countries, showcasing a diverse range of methodologies including quantitative, qualitative, and mixed-method approaches.

One of the critical insights from the article is the identification of nine main themes that are pivotal for the success of technology-enhanced learning in undergraduate medical education. These themes encompass cognitive enhancement, content curation, digital capability, technological usability, pedagogical practices, learner characteristics, learning facilitator roles, social representations, and institutional support. Each of these components plays a significant role in shaping the educational experience and outcomes for future medical professionals.

Cognitive enhancement is highlighted as a crucial element, emphasizing the importance of fostering critical thinking and problem-solving skills among students. The authors argue that technology should not merely serve as a tool but as a catalyst for deeper cognitive engagement. Content curation is also

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underscored, pointing to the necessity of selecting and organizing relevant materials that align with educational objectives and student needs.

The theme of digital capability addresses the varying levels of technological proficiency among learners, suggesting that educational institutions must consider these differences when designing curricula. This is complemented by the discussion on technological usability, which emphasizes that the ease of use of educational technologies directly impacts student engagement and learning outcomes.

Pedagogical practices are examined in light of their adaptability to integrate technology effectively into the learning process. The article suggests that educators must be trained in modern pedagogical strategies that embrace technology to enhance the learning experience. Furthermore, the role of the learning facilitator is critical, as they must guide students in navigating the complexities of technology-enhanced learning environments.

The article also emphasizes the importance of social representations, indicating that the perceptions and attitudes towards technology among students and faculty can significantly influence the learning environment. Finally, institutional support is deemed essential for fostering an environment conducive to technology-enhanced learning, highlighting the need for strategic planning and resource allocation by educational institutions.

The article "Medical Education Electives Can Promote Teaching and Research Interests Among Medical Students" by [6] provides a comprehensive examination of the role that medical education electives play in shaping the pedagogical skills and research interests of medical students. The authors argue that these electives are crucial for preparing future physicians not only to be competent clinicians but also effective educators and leaders within the medical community. This dual focus on clinical proficiency and educational acumen is increasingly recognized as essential in addressing the evolving demands of healthcare and medical education.

One of the key insights presented in the article is the shift in medical education from a teacher-centered model to a learner-centered approach. This transition emphasizes the importance of active student participation and academic accountability, which are critical for developing higher-order thinking, problem-solving, and critical-thinking skills. The authors highlight that while there is an inherent expectation for clinicians and residents to take on teaching roles, there is often a lack of formal training specifically designed for instructing medical students. This gap underscores the necessity for structured medical education electives that can equip future physicians with the pedagogical tools required for effective teaching.

Furthermore, the article discusses the potential of medical education electives to stimulate interest in academic medicine and educational research among undergraduate medical students. By engaging in these electives, students are encouraged to contribute to curriculum development and educational innovations, thereby fostering a culture of continuous improvement within medical education. The authors advocate for greater institutional support in allowing students to undertake these electives, positing that such experiences will not only enhance their teaching capabilities but also enrich their overall medical training.

The authors also emphasize the importance of understanding learning theories as a foundational component of medical education. This knowledge is essential for developing effective teaching strategies that resonate with diverse learning styles and promote student engagement. The article effectively argues that exposure to medical education electives can cultivate a deeper appreciation for

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the educational process and inspire future medical professionals to pursue careers in academia or educational leadership.

The article "Interventions, methods and outcome measures used in teaching evidence-based practice to healthcare students: an overview of systematic reviews" by [7] provides a comprehensive examination of the pedagogical strategies employed in teaching evidence-based practice (EBP) to healthcare students. The authors emphasize the importance of interdisciplinary collaboration among various professionals, including health educators, librarians, and information technology specialists, in enhancing the educational experience and outcomes for students in clinical settings.

One of the central themes of the article is the significant role that collaboration plays in the effective teaching of EBP. The authors argue that when librarians and computer laboratory technicians work alongside nurse educators, students are better equipped with the skills necessary to navigate research literature and apply evidence in clinical practice. This interdisciplinary approach not only enriches the learning environment but also fosters a more holistic understanding of EBP among students.

The article also highlights the impact of integrating EBP into clinical education, noting that such integration promotes the acquisition of knowledge and skills that are essential for future healthcare professionals. The findings suggest that during a structured six-week clinical practice course, students demonstrated improved competencies in reading and interpreting research articles, as well as in presenting their findings. This experiential learning component is crucial, as it bridges the gap between theoretical knowledge and practical application, thereby enhancing the relevance of EBP in real-world scenarios.

Moreover, the participation of students in clinical research projects is identified as a vital element in cultivating a positive attitude towards EBP. The authors report that students who engage in these projects, particularly those that involve instruction in analyzing research findings, develop a deeper understanding of EBP principles. This hands-on experience not only boosts their critical thinking skills but also instills a sense of purpose and meaning in their educational journey.

The article concludes by reinforcing the notion that reading research articles during clinical practice is instrumental in enhancing students' critical thinking abilities. The authors argue that the opportunity to conduct a "mini" research project in clinical settings allows students to apply theoretical knowledge in practical contexts, thereby solidifying their understanding of EBP.

Conclusion

The study underscores the critical role of integrating medical components into hospital pedagogy for future pedagogical students. Key conclusions include:

- Experiential Learning. Essential for bridging theoretical knowledge with practical application, fostering critical thinking, and enhancing professional competencies.
- Interprofessional Collaboration. Vital for breaking down disciplinary silos and promoting teamwork and patient safety in healthcare education.
- Evidence-Based Practice. Central to cultivating research literacy and critical analysis skills among students, ensuring their readiness for clinical and educational roles.
- Technology Integration. Necessary for equipping students with the skills to navigate modern healthcare challenges, including the use of artificial intelligence and digital tools.

Future research should focus on long-term outcomes of these pedagogical innovations and their impact on healthcare delivery and education. Institutions must prioritize interdisciplinary collaboration, robust

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teacher training, and curriculum reforms to prepare students for the dynamic landscape of medical education.

References:

1. V. Ferro Allodola, "The effects of educational models based on experiential learning in Medical Education: an international literature review," 2014. [PDF]
2. A. Burgess, C. Roberts, C. van Diggele, and C. Mellis, "Peer teacher training (PTT) program for health professional students: interprofessional and flipped learning," 2017. ncbi.nlm.nih.gov
3. R. Samuriwo, E. Laws, K. Webb, and A. Bullock, "“I didn’t realise they had such a key role.” Impact of medical education curriculum change on medical student interactions with nurses: a qualitative exploratory study of student perceptions," 2019. ncbi.nlm.nih.gov
4. E. R. Han, S. Yeo, M. J. Kim, Y. H. Lee et al., "Medical education trends for future physicians in the era of advanced technology and artificial intelligence: an integrative review," 2019. ncbi.nlm.nih.gov
5. N. K. Naeem, M. Saiful Bahri Yusoff, S. Nurma Hanim Hadie, I. Mahazir Ismail et al., "Understanding the Functional Components of Technology-Enhanced Learning Environment in Medical Education: A Scoping Review," 2023. ncbi.nlm.nih.gov
6. S. B Arja, S. Bala Arja, K. Ponnusamy, P. Kottath Veetil et al., "Medical Education Electives Can Promote Teaching and Research Interests Among Medical Students," 2024. ncbi.nlm.nih.gov
7. L. D. Nielsen, M. M. Løwe, F. Mansilla, R. B. Jørgensen et al., "Interventions, methods and outcome measures used in teaching evidence-based practice to healthcare students: an overview of systematic reviews," 2024. ncbi.nlm.nih.gov