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## THE ROLE OF MEDICAL TECHNICAL SCHOOLS IN SHAPING FUTURE NURSES

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### **ABSTRACT**

*Critical thinking is an essential competency for nursing professionals, enabling them to make informed decisions in complex and unpredictable healthcare environments. Nursing students must develop these skills early in their education to succeed in clinical practice. This article explores the importance of fostering critical thinking in nursing education and presents several teaching strategies, including simulation-based learning, case studies, problem-based learning (PBL), and reflective practice.*

**Keywords:** *Critical thinking, nursing education, simulation-based learning, problem-based learning, reflective practice, clinical reasoning, decision-making.*

### **ANNOTATSIYA**

*Tanqidiy fikrlash hamshiralilar uchun muhim kompetensiya bo'lib, ularga murakkab va oldindan aytib bo'lmaydigan sog'liqni saqlash muhitida ongli qarorlar qabul qilish imkonini beradi. Hamshiralik ishi bo'yicha talabalar klinik amaliyotda muvaffaqiyatga erishish uchun ushbu ko'nikmalarni ta'limning boshida rivojlantirishlari kerak. Ushbu maqola hamshiralik ta'limida tanqidiy fikrlashni rivojlantirishning ahamiyatini o'rganadi va bir nechta o'qitish strategiyalarini,*

*jumladan, simulyatsiyaga asoslangan o'rganish, amaliy tadqiqotlar, muammoli o'rganish (PBL) va reflektiv amaliyotni taqdim etadi.*

***Kalit so'zlar:*** *Tanqidiy fikrlash, hamshiralik ta'limi, simulyatsiyaga asoslangan ta'lim, muammoli o'rganish, refleksli amaliyot, klinik fikrlash, qaror qabul qilish.*

### **АННОТАЦИЯ**

*Критическое мышление является важнейшей компетенцией для специалистов по сестринскому делу, позволяющей им принимать обоснованные решения в сложных и непредсказуемых условиях здравоохранения. Студентки-медсестры должны развивать эти навыки на ранних этапах обучения, чтобы добиться успеха в клинической практике. В этой статье рассматривается важность развития критического мышления в сестринском образовании и представлены несколько стратегий обучения, включая обучение на основе симуляции, тематические исследования, проблемно-ориентированное обучение (PBL) и рефлексивную практику.*

***Ключевые слова:*** *критическое мышление, сестринское образование, обучение на основе симуляции, проблемно-ориентированное обучение, рефлексивная практика, клиническое обоснование, принятие решений.*

### **INTRODUCTION**

Critical thinking is the cornerstone of effective nursing practice. In a healthcare environment that is increasingly complex and technologically advanced, nurses must make quick, sound decisions based on critical analysis of patient data, clinical evidence, and ethical considerations. For nursing students, developing critical thinking skills is vital for their success both in their academic studies and in real-world clinical settings.

Nurses encounter a range of patient scenarios requiring accurate assessments, effective problem-solving, and the ability to predict and mitigate potential complications. Developing critical thinking is not merely about acquiring technical

skills or theoretical knowledge; it involves cultivating a mindset that questions assumptions, evaluates information from multiple perspectives, and applies evidence-based reasoning.

## **METHODOLOGY**

The methodology employed in this article involves a literature review of peer-reviewed studies, educational frameworks, and evidence-based practices focused on developing critical thinking skills in nursing students. The data sources include academic journals, empirical research, and case studies published between 2010 and 2023. This review analyzes the effectiveness of several teaching strategies—simulation-based learning, problem-based learning, case studies, and reflective practice. In addition, interviews were conducted with experienced nursing educators to gather practical insights into the application of these methods in the classroom and clinical settings.

## **RESULTS**

### **1. Simulation-Based Learning**

Simulation-based learning is widely recognized as an effective tool for enhancing critical thinking in nursing students. By simulating real-world clinical scenarios, students are exposed to hands-on learning experiences where they must make quick decisions based on patient data, assess risks, and collaborate with team members. High-fidelity simulations use mannequins or virtual patients to replicate complex clinical conditions, allowing students to practice critical thinking and decision-making in a controlled environment. Studies reveal that simulation-based learning leads to significant improvements in clinical reasoning, problem-solving, and decision-making skills.

### **2. Case-Based Learning (CBL)**

Case-based learning (CBL) involves presenting students with real or hypothetical patient cases, encouraging them to analyze, evaluate, and propose interventions. The discussion of case studies in small groups fosters collaboration, critical thinking, and the application of theory to practice. Research indicates that

students engaged in CBL demonstrate improved clinical judgment and critical thinking by considering various outcomes and treatment options. Moreover, CBL promotes reflective thinking, which is essential for self-evaluation and continuous learning.

## **ANALYSIS**

### **1. Improved Decision-Making Skills**

The various teaching methods explored—simulation, CBL, PBL, and reflective practice—contribute to developing critical decision-making skills in nursing students. Through simulation, students are placed in situations where they must make quick, evidence-based decisions, often under pressure. Case studies and PBL emphasize analyzing patient data and clinical evidence to inform decisions. Reflective practice, on the other hand, allows students to assess the quality of their decisions retrospectively, helping them learn from their actions and improve future decision-making.

## **DISCUSSION**

### **1. Advantages of Critical Thinking in Nursing Education**

Developing critical thinking skills in nursing students is essential for ensuring safe, high-quality patient care. Nurses who can think critically are better equipped to assess patient conditions, identify potential problems, and implement appropriate interventions. Teaching strategies like simulation-based learning, PBL, and case studies provide opportunities for students to practice these skills in realistic, risk-free environments. Additionally, critical thinking prepares students for the unpredictability of clinical practice, enabling them to make informed decisions in high-pressure situations.

### **2. Challenges in Implementing Critical Thinking Strategies**

While the benefits of fostering critical thinking in nursing education are clear, challenges remain in implementing these strategies. Simulation-based learning and PBL require significant resources, including high-fidelity equipment, well-trained educators, and adequate time for preparation and debriefing. Some educational institutions may lack the financial resources or infrastructure to fully integrate these

methods into their curricula. Additionally, students accustomed to traditional lecture-based learning may initially struggle with the demands of active, student-centered learning approaches.

## CONCLUSION

Developing critical thinking skills in nursing students is crucial for preparing them to meet the demands of modern healthcare. Innovative teaching strategies, including simulation-based learning, PBL, case studies, and reflective practice, provide nursing students with opportunities to practice clinical reasoning, decision-making, and problem-solving in realistic settings. These methods enhance student engagement, improve clinical competence, and promote lifelong learning. Although challenges exist in implementing these strategies, their long-term benefits in shaping competent, critical-thinking nurses are undeniable. Moving forward, nursing educators and institutions must prioritize the integration of critical thinking development in their curricula to prepare students for the complexities of clinical practice.

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