

POSSIBILITIES OF USING PEDAGOGICAL TOOLS IN DEVELOPING STUDENTS' PRACTICAL AND CLINICAL COMPETENCIES

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Abstract: This article examines the possibilities of using pedagogical tools to develop practical and clinical competencies among medical students. Modern medical education requires innovative teaching methods such as simulation-based learning, case studies, interactive technologies, and competency-based approaches.

Keywords: practical-clinical competence, medical education, pedagogical tools, simulation technologies, case-based learning, competency-based approach, clinical reasoning, diagnostic skills.

INTRODUCTION

The development of practical and clinical competencies represents a central and defining objective within the sphere of modern medical education. It is imperative that future physicians not only accumulate a vast body of theoretical knowledge but are also proficient in applying it effectively and ethically in real-world clinical settings. Pedagogical tools serve a critical function in bridging the persistent gap between academic theory and clinical practice by offering structured, interactive, and context-based learning experiences. The implementation of innovative methods such as simulation-based education, case-based learning, virtual laboratories, and competency-based assessments fosters a dynamic learning environment where students can practice and refine their clinical skills under safe and controlled conditions. Furthermore, the integration of these tools is instrumental in developing essential ancillary skills, including critical thinking, effective teamwork, and reflective practice, which are indispensable for a successful medical career. By thoughtfully incorporating these tools into medical curricula, educators can cultivate a learner-centered environment that promotes the comprehensive professional and personal growth of students.

METHODS

A systematic approach to developing practical-clinical competence requires a diverse array of pedagogical tools designed to engage students actively, address their internal learning processes, and situate learning within authentic professional contexts. This framework is organized around three key areas: activating internal resources, developing interactive clinical reasoning, and enhancing the teacher's guiding role.

I. Tools for activating students' internal resources - Recognizing that a student's internal state is crucial to learning, several tools are recommended to engage their motivation and metacognitive activity. These include:

Motivational stimulus exercises: These are tasks specifically designed to encourage students to express their opinions, engage their creativity, and think critically about the subject matter.

Reflective writing and clinical journals: Through these tools, students are prompted to analyze their own practical-clinical activity, thereby identifying and understanding their personal strengths and weaknesses.

Portfolios and achievement-oriented assessment: These instruments serve to formally record a student's progress over time and support the implementation of individualized learning approaches.

II. Tools for developing interactive clinical reasoning - Since all practical-clinical activity is inseparable from its clinical context, a variety of interactive methods are essential for its development. Clinical reasoning is considered a universal form of competence that is formed through discussion-based collaboration between teachers and students. The following tools are particularly effective: Working with Medical Case Studies: Engaging with materials like scientific articles, technical descriptions, and technological guidelines helps students develop logical thinking, analytical skills, and the ability to express opinions on specific topics.

Interactive and Simulation-Based Methods: To develop the practical component of competence, methods such as role-playing, simulations, debates, presentations, and problem-based discussions play an important role. These approaches not only enhance practical competencies but also cultivate students' independent thinking and professional activity.

III. The teacher's role and discursive competence - The teacher is the main driver of this entire process and must possess a specific set of skills. This includes the ability to organize practical-clinical activities, choose lesson strategies suited to students' needs, teach the medical tools necessary for professional reasoning, and effectively model treatment processes. A key skill is discursive competence, which is the teacher's ability to effectively manage, explain, assess, encourage, and communicate during lessons. Discursive tools are units the teacher employs to ensure the coherent presentation of ideas, initiate lessons and questions, evaluate student responses, and deliver content in a clinically reasoned manner. This competence is vital when presenting complex authentic cases that demand clear structure and logical connections.

RESULTS

The effective implementation of these pedagogical tools results in the development of a multifaceted practical-clinical competence, which can be broken down into several distinct but interconnected components.

Pragmatic Competence: This is a key part of competence in infectious diseases, focusing on the goal-oriented use of practical tools and the selection of clinical reasoning strategies appropriate to a given context. It involves the ability to clearly express clinical intent, focusing not merely on what is said, but on why and how it is said to achieve a practical-clinical task.

Discursive-Diagnostic Competence: This important element involves the ability to organize information logically, coherently, and contextually during clinical activity. It integrates medical, logical, and structural elements to ensure the precision of clinical reasoning when working with cases. Specific skills include understanding disease structures, maintaining semantic connections, ensuring thematic consistency, and using linking tools appropriately.

Contextual and Practical Skills: Through engagement in real contexts of infectious diseases—such as compiling patient histories, making differential diagnoses, and participating in clinical decision-making—students develop structured expression, risk assessment skills, and competencies in epidemiological control.

Professional Soft Skills: Beyond technical knowledge, students also develop important soft skills essential for professional clinical reasoning, including accuracy, active listening, debating, sound reasoning, and clinical sensitivity.

DISCUSSION

The development of practical-clinical competencies is a strategic pedagogical task that is foundational to the overall effectiveness of the medical education process. Achieving this

requires a set of complex pedagogical conditions, including learning activities based on practical environments, the use of interactive methods, the integration of modern information technologies, and the continuous improvement of teachers' methodological skills. This holistic approach ensures that the content of education is comprehensive, encompassing not only medical knowledge but also the development of students' deontological, clinical, and professional awareness.

The future physician's activity is invariably linked to their professional values, and therefore, teaching must consider not only the tools of the discipline but also the expression of ideas and context-based communication. The teacher's role, particularly their discursive competence, is paramount in navigating this complex educational terrain. By using pedagogically grounded technologies, educators can teach medical students to think independently, engage in meaningful clinical reasoning, and, most importantly, apply that reasoning effectively in real-life situations. Therefore, a systematic and well-grounded approach that leverages a diverse portfolio of pedagogical tools is essential for training competent, confident, and practice-ready physicians who are prepared to meet modern healthcare challenges.

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