

Use of Simulation-Based Learning while Learning and Teaching Medical Biochemistry

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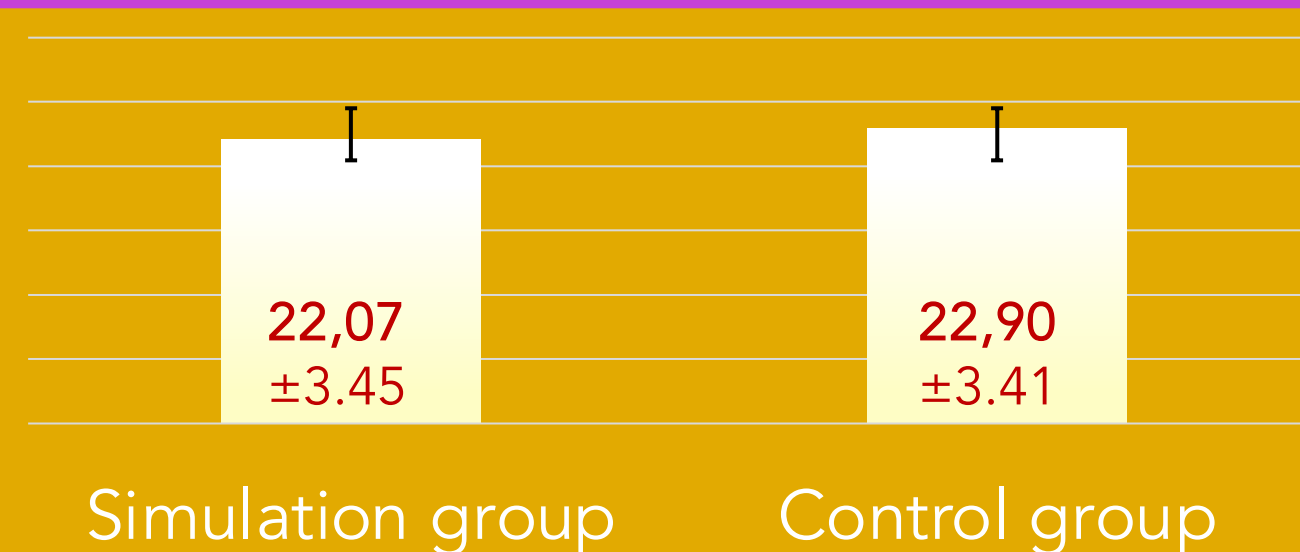
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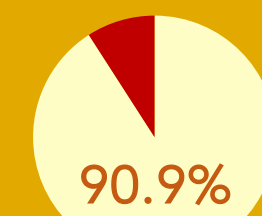
BACKGROUND

Medical biochemistry is often considered a **less important**, and therefore **unpopular subject** among medical students.

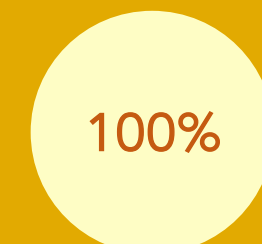
Using simulation-based approach, we aimed to **increase students' awareness** of the subject's importance for future studies and clinical practice, as well as to **enhance short-term retention** of information.



Q1: Simulation is a suitable teaching method for this particular topic



Q2: Introducing simulations into teaching would help me better realize the importance of the subject for future practice



■ positive ■ neutral

RESULTS

According to questionnaires, students generally **perceived simulation-based learning** as **appropriate** for the subject, with potential to enhance awareness of subject's clinical relevance

However, there was **no significant difference** in the test performance between groups (t-test, $p = 0.55$)

METHODS

Second-year students ($n=25$) enrolled in General Medicine and Dentistry degree programs, were divided into **simulation group** ($n=15$) and **control group** without innovation ($n=10$).

Data was collected from **student questionnaires** and **knowledge tests** (after 4 weeks) in both groups.

High-fidelity simulation on the topic **„Signal transduction in the autonomic nervous system“** was conducted in cooperation with Department of Medical Education and Simulations.

In two-step scenario, students were tasked with selecting a proper treatment, based on the knowledge developed from the provided study material and lecture.

