

61. **SIMULATION BASED PEER-ASSISTED LEARNING: PERIPHERAL VENOUS CATHETERIZATION AND BLOOD SAMPLING.**

Didina Cătălina Barbălată¹, Cristian Toma².

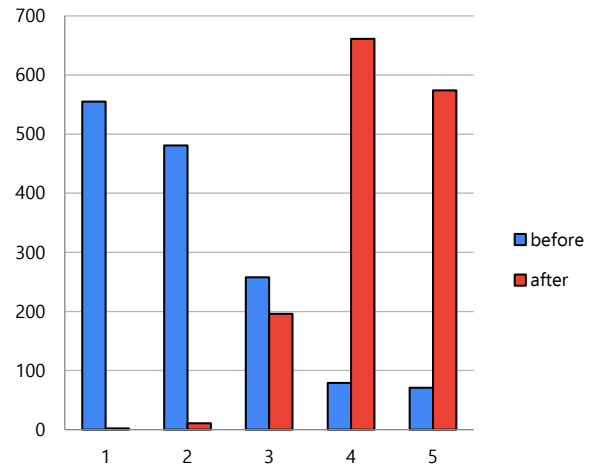
¹ Fourth-year Medical Student. Carol Davila University of Medicine and Pharmacy, Bucharest, Romania.

² MD PhD Assistant Professor. Carol Davila University of Medicine and Pharmacy, Bucharest, Romania, Professor Doctor Theodor Burghel Clinical Hospital, Bucharest, Romania.

INTRODUCTION: Peripheral venous catheterization (PVC) and blood sampling (BS) represent some of the first basic techniques that a medical student learns when starting clinical practice. As they are invasive maneuvers, there is a level of self-doubt that can be overcome through practice in a simulated setting. Peer-assisted medical simulation learning is an innovative educational technique that allows students to gain confidence in conducting clinical maneuvers in a safe environment. Simulation based learning focuses on trial and error, participants being able to approach the technique multiple times, without the risk of hurting a real patient. Additionally, the fact that the workshop is conducted by fellow students, creates a more comfortable learning setting. **AIM:** Our aim is to determine the effectiveness of medical simulation in learning to perform PVC and BS and in increasing the level of confidence of the participants.

METHODS: Our study was conducted at the Department of Medical Simulation of the Center for Innovation and e-Health (CieH), part of the University of Medicine and Pharmacy "Carol Davila" Bucharest, Romania, between March and December 2021. During this period, 2186 first year students took part in a peer-conducted simulation workshop, conducted by undergraduate medical students in all years of studies, who had previously undergone extensive training and evaluation. The aim of the workshop was to learn the basics in PVC and BS in a controlled environment. Through a questionnaire, we collected data regarding knowledge acquisition and auto-evaluation of the students' skill and knowledge prior and after the training on a five-point scale. At the beginning of the questionnaire we obtained informed consent from the study participants **RESULTS:** The response rate to the questionnaire was 66,10%. The participants obtained an average score of 60%. There were few participants that did not acquire enough information in order to answer correctly to the questionnaire. 80% of the respondents answered accurately on 2 out of 3 questions. We observed a 48,35% increase in the confidence level of participants regarding clinical knowledge and skill acquisition after the workshop. Prior to the workshop, only 10% of participants self-evaluated with a score of 4 or 5, compared to 85% of respondents after the workshop. **CONCLUSION:** The medical simulation training led to a significant rise in students' confidence and a high impact on the development of skill and knowledge. Through our basic workshops we want to familiarize the participants with the clinical environment, additional knowledge and skills being acquired once throughout their studies. The workshop's objective of increasing participants' comfort regarding basic clinical techniques, such as blood sampling and peripheral venous catheterization, was accomplished. The outcome of the study enables us to adapt the curriculum and testing procedures to better meet the needs of the participants.

Figure. Auto evaluation scores – before and after workshop



Key words: Medical simulation; Peer-assisted learning; Peripheral venous catheterization.