

Low-cost peripheral intravenous access simulator: expanding vascular access training in resource-limited settings

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Introduction

The peripheral intravenous puncture is a procedure performed by healthcare professionals and some students in the field during their professional training.

Objective

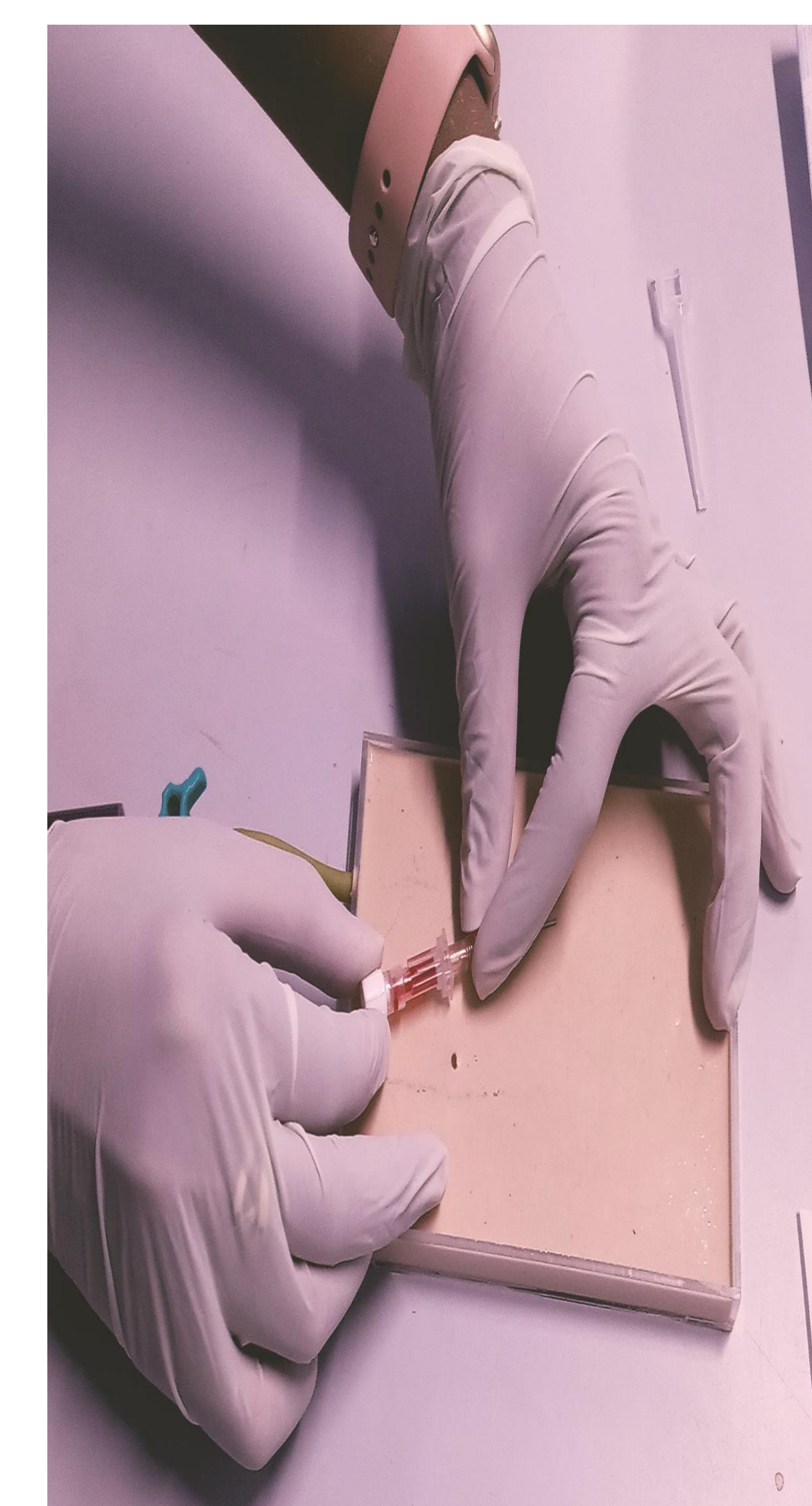
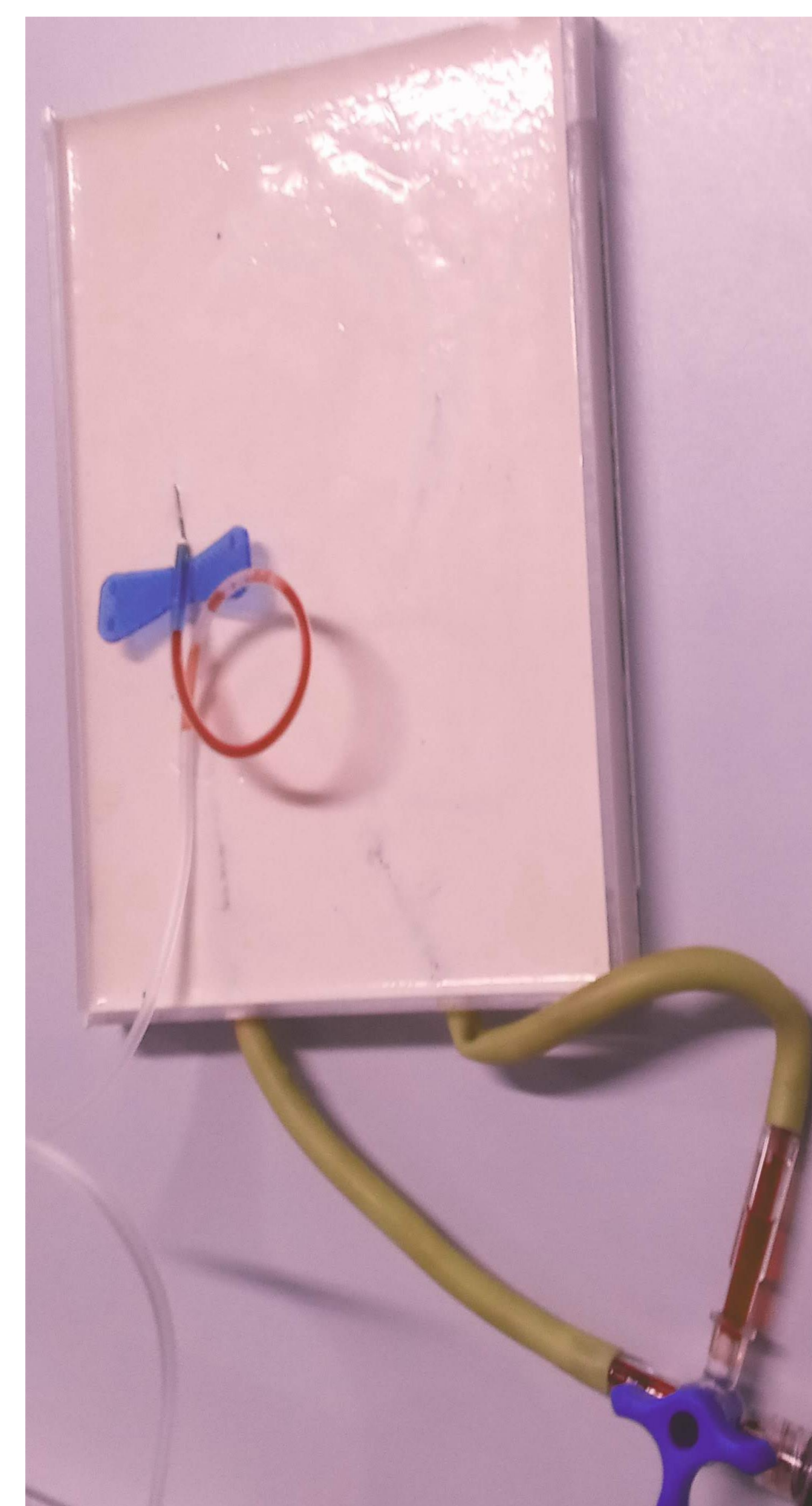
The objective of this study is to describe the use of a low-cost simulator as a teaching and learning tool for peripheral intravenous puncture in a training course.

Methods

This is a descriptive study, of the experience report type, based on a training course on injectable practices, carried out at a Health Simulation Center in the city of Fortaleza, Ceará, Brazil, for students and professionals who perform peripheral intravenous puncture.

Results

The puncture simulators are manufactured with low-cost materials: an acrylic structure measuring 2.0cm x 12cm x 10cm covered with latex rubber (veins), industrial rubber (synthetic skin), and aniline (blood). Ultrasound can be used to perform the procedure, following key recommendations such as indication, insertion, maintenance, prevention and treatment of complications, and removal.



Conclusion

The experience fostered the development of technical skills in a safe and risk-free environment. Furthermore, the device has the potential to be incorporated into training curricula and in-service training programs, contributing to standardizing practices and improving the quality of care in different institutional contexts.