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Teaching clinical skills during pandemic times: Online clinical simulation

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Abstract

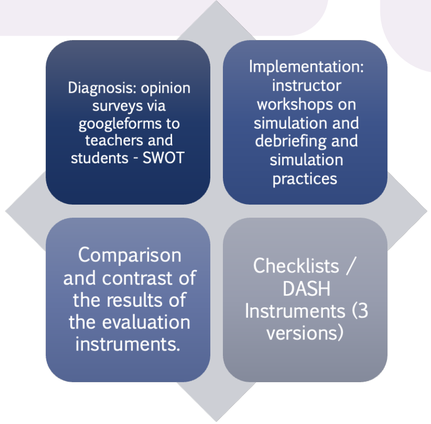
Clinical simulation is a teaching strategy that replicates medical situations in controlled environments, promoting learning without risks. At School of Medicine of the Universidad Anáhuac (Querétaro campus) designed online clinical simulation practices and assessments during COVID-19 pandemic. Simulation practices and debriefing as a joint concept helped to develop clinical skills. During this time, important reflections on the future of simulation-based education have emerged.

Introduction

Clinical simulation is a teaching strategy that replicates medical situations in controlled environments, promoting learning without risks. The COVID-19 pandemic created disruptions for health care simulation centers. As a response, the School of Medicine of the Universidad Anáhuac (Querétaro campus) designed online clinical simulation practices and debriefing assessments. The **pre-intervention survey** showed skeptical medical students (59.15%) to continue on this learning format.

Methodology

The intervention included **neurology, cardiology, and gynecology topics** supported by five faculty members and staff. Instruments were examination checklists to evaluate the clinical skills based on a 100 score, and the Debriefing Assessment for Simulation in Healthcare (DASH) with a 1 (Extremely ineffective) to 7 (Extremely effective) score. Checklists were designed by simulation instructors and validated by faculty specialists for each subject. Participants were 38 medical students from the third and fourth years.

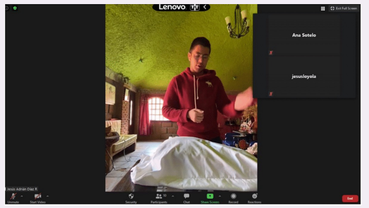


Results

Students received individual training by Zoom, including simulation practices, debriefing, and assessment.

Clinical simulation results.

Clinical skills	Result range	Average
Cardiovascular examination	from 40-70	47
Neurological examination	from 50-75	65.5
Leopold maneuvers (gynecology)	from 80 - 100	84.4



DASH instruments computed a range of 4.95 - 6.86 and $\bar{x}$= 6.

Simulation **practices and debriefing** as a joint concept helped to **develop clinical skills** in a online learning enviroment.

Conclusions

Even though it seemed impossible to address clinical skills by distance, online clinical simulation practices might be a useful tool for teaching clinical skills for medical students. Collaborative participation between faculty, students, and staff facilitated online learning during COVID- 19 unusual conditions. Important reflections arise about the future of simulation-based education.

References

Biography

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