Title-EFFECTIVENESS OF SIMULATION TRAINING ON ADVANCED LIFE SUPPORT ALGORITHMS IN MEDICAL EDUCATION

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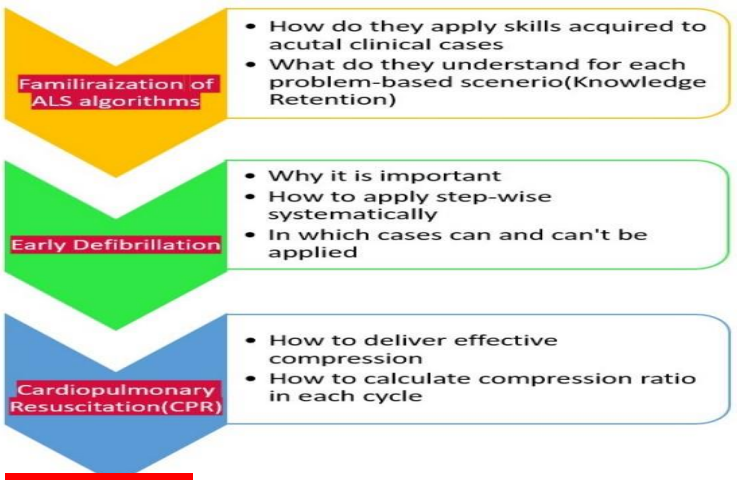
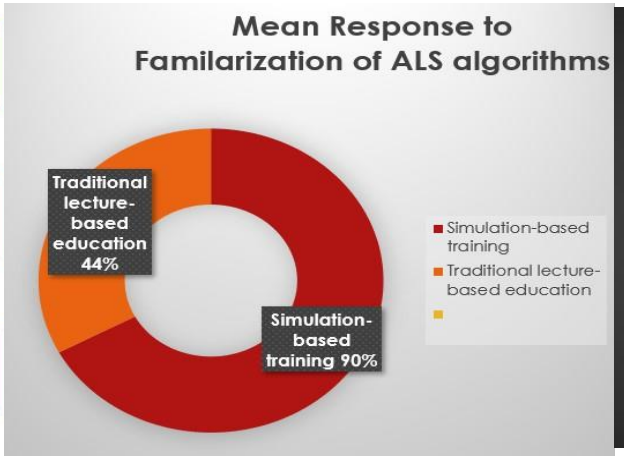
Introduction: ***The use of simulation in education has been increasingly prevalent in recent years and medical education is no exception to this phenomenon. Hence, there is no doubt that simulation training in advanced life support algorithms has significantly improved the quality of care provided by doctors during actual cardiac arrest events.***

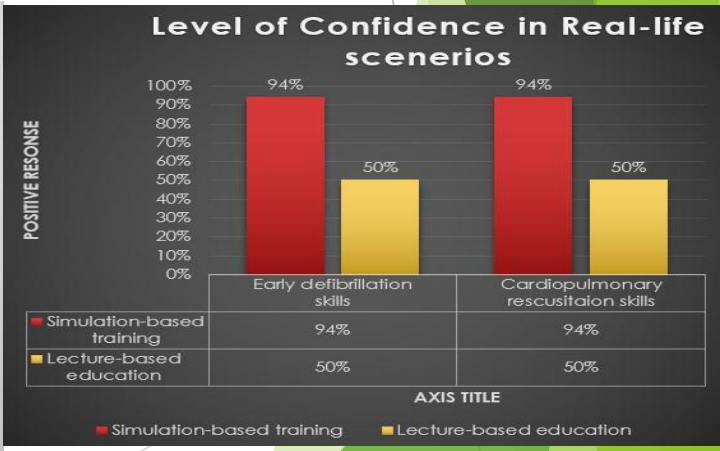
Methods: A total of 30 post-graduate doctors have attended advanced life support sessions from 1st April 2021 to 31st July 2021. Out of 15 have received simulation-based scenarios in ALS algorithms while the remaining 15 of 30 underwent traditional lecture-based education. The survey questionnaires were created upon the student's perception of their level of confidence in applying algorithms in real-life practice. This includes three main domains recorded in terms of familiarizations of ALS algorithms, Early defibrillation, and Cardiopulmonary Resuscitation. A final survey was concluded upon knowledge retention and ability to apply skills acquired in real-life scenarios among two groups.

Aim: This study aimed to assess the effectiveness of the use of simulation scenarios for ALS algorithms for post-graduate doctors. Effectiveness was measured in terms of the extent of familiarization of algorithms (knowledge retention) and ability to apply the skills learned in early defibrillation and chest compressions in subsequent real practices

Results: Simulator-trained doctors showed significantly higher adherence to familiarization of advanced life support algorithms (mean responses,90%) vs traditionally trained doctors (mean responses,44%). In terms of students' perception of the level of confidence in applying early defibrillation and cardiopulmonary resuscitation skills in real-life scenarios, participants in simulation training showed 94% of positive responses while only 50% of the response was noted in the traditionally trained group. Post-simulation training survey revealed that doctors were generally in favour of incorporating cardiopulmonary simulator training in ALS algorithms and early defibrillation with case-based scenarios.







Conclusion: ***The role of simulation-based training in ALS algorithms is highly valued in post-graduate medical education, which helps acquire foundational skills in actual cardiac arrest situations. Nevertheless, simulation aids the translation of preclinical knowledge into real-life clinical skills so that this should be implemented in the formal curriculum as an adjunct to traditional lecture-based training.***