Exploring the use of virtual reality technology in neonatal resuscitation simulation for midwifery students

Jessica Williams
The University of Newcastle, Australia

Simulation is now established as a valuable method of teaching clinical based skills to students and registered nurses and midwives in a safe environment to improve confidence and competence in practice. Virtual Reality (VR) simulation is a relatively new, innovative and largely unexplored area when it comes to its application in health education and training. Research has commenced at the University of Newcastle exploring VR simulation in learning the clinical skill of neonatal resuscitation. The aim of this project is to determine if the use of VR technology enhances a student's level of confidence in regards to performing neonatal resuscitation when compared with currently used low-fidelity simulation. VR technologies have been studied within patient treatment/rehabilitation settings and for education and training, particularly for students or junior practitioners. While many areas of medicine have utilized VR in clinical skills training, there is currently limited VR-related research published in the fields of nursing and midwifery. This highlights a significant gap in current literature, especially given there are numerous nursing/midwifery emergency scenarios that could potentially benefit from VR simulation and skills development. One common midwifery emergency is neonatal resuscitation, hence the focus topic for this project, and this has been determined to be an ideal clinical skill to teach students using a VR platform. While the first introductions for this skill are taught at the student level, VR technology is highly translatable to registered midwives, doctors and neonatal nurses, and can contribute to the ongoing confidence and competence with this skill.

Biography

Jessica Williams is an early career researcher at the University of Newcastle currently pursuing PhD research exploring the use of virtual reality technology in neonatal resuscitation simulation for bachelor of midwifery students. With a background in both nursing and midwifery, she has a strong interest in how new technologies can be used to enhance clinical skills learning among nurses, midwives and students in these fields.

Jessica.Williams@newcastle.edu.au