ORIGINAL RESEARCH

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## UNLOCKING POTENTIAL: HARNESSING VIRTUAL REALITY AS A TEACHING TOOL FOR UNDERSTANDING AUTISM SPECTRUM CONDITION (ASC)

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**Introduction:** Individuals with ASC experience poorer health outcomes globally, yet healthcare professionals often lack adequate ASC knowledge [1]. Simulation-based learning enhances recall and practice [2], though resource limitations often restrict its use. Mental health nursing simulations are less developed compared to other fields, leaving a gap in training. Our co-created 360-degree video aims to address this by providing realistic scenarios that enhance students' empathy and confidence in working with ASC patients.

**Methods:** This research aimed to co-create real-time scenarios filmed in 360-degree video to help students understand how a person with ASC experiences hospital admission or clinical procedures. Working with qualified nurses and individuals with lived experience, we developed a 360-degree video of an ASC patient being assessed in a hospital setting. The video was embedded in a Complex Health Care teaching unit and viewed by third-year nursing students using Oculus Quest™ devices. Data were collected via an online survey and focus group discussions (with students and staff) and thematically analysed [3]. Ethical clearance was obtained from our university's ethics committee.

**Results:** Eighty students responded to our survey (32% response rate), with 65% reporting no prior ASC training. Seventy-four per cent found the VR resource useful, and 66% felt it would benefit their clinical practice. The small

sample size is a limitation, and responses may not be fully representative of the broader student population. Ongoing focus group analysis suggests that the VR exercise helps increase students' confidence, knowledge, and empathy, as evidenced by comments like: "This was excellent as it put you in the shoes of someone with ASC." Staff facilitators provided insights into running VR sessions with large cohorts, including the need for preparatory and debriefing sessions, managing background noise, appropriate staff-to-student ratios, and addressing students entering the session late.

**Discussion:** This study highlights a significant educational gap, with many students lacking prior ASC training. The positive response to the VR experience suggests it can improve understanding, empathy, and confidence, which may translate to better clinical interactions with ASC patients. Facilitators also identified key considerations for optimizing VR sessions, such as session preparation, managing group dynamics, and debriefing for knowledge consolidation and reflective practice. These findings have implications for nursing education policies, emphasizing the need for structured VR training in mental health curricula. Future research should explore the long-term impact of VR training on knowledge retention and clinical practice, as well as best practices for large-group VR training.

**Ethics Statement:** As the submitting author, I can confirm that all relevant ethical standards of research and dissemination have been met. Additionally, I can confirm that the necessary ethical approval has been obtained, where applicable

## REFERENCES

1. Corden K, Brewer R, Cage E. A Systematic Review of Healthcare Professionals' Knowledge, Self-Efficacy and Attitudes Towards Working with Autistic People. Rev J Autism Dev Disord. 2022 Sep 1;9(3):386–99.
2. Singleton H, James J, Falconer L, Holley D, Priego-Hernandez J, Beavis J, et al. Effect of non-immersive virtual reality simulation on Type 2 diabetes education for nursing students: a randomised controlled trial. Clin Simul Nurs. 2022;66:50–7.
3. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3(2):77–101.

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