THE EXPERIENCING SENSORY OVERLOAD PROJECT (ESOP): DEVELOPING AN IMMERSIVE SIMULATION EXPERIENCE FOR HEALTHCARE PROFESSIONALS.

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Background: Atypical sensory processing is described as a difficulty in regulating and managing sensory input in a meaningful, ordered way to make sense of the world and environment in which you find yourself. Sensory processing disorder (SPD) is common in individuals with autism, pervasive development disorders, and neurodivergent conditions [1,2,3]. The National Institute of Clinical Excellence (NICE) [2] suggest sensory processing disorders are often overlooked by education, social, and healthcare professionals, leading to health and social inequalities with individuals less able to access 'support and services that they need to live independently' [2 p5]. The Experiencing Sensory Overload Project (ESOP) aims to champion inclusive practice and reduce health inequalities by encouraging and enabling healthcare professionals to reconsider their approach, and their working environments to create sensorily safe spaces for individuals who may experience sensory overload.
Activity: The authors recognised there was insufficient education on SPD within the current nursing curriculum. To address this theory/practice gap, training was sought externally. This consisted of a short simulation-based activity with training delivered by carers who had experience of sensory overload. This was well evaluated by the student participants; however lecturing staff felt the training did not meet our university teaching and learning standards. The positive student feedback provided the impetus to forge links with digital arts colleagues to co-create a robust, pedagogically sound and immersive learning experience.
Findings: The collaborative journey of ESOP has been led and facilitated by academics from the School of Nursing and Midwifery and the School of Arts in a cross-school alliance (Figure 1). Nursing academics acted as 'clients' whilst the creative media team worked as 'creatives' developing a high-fidelity Virtual Reality (VR) experience that gives users an insight into sensory overload. Post-pandemic, this project has relaunched with the creation of a film of two young people with SPD, frankly, discussing their life opportunities and challenges. Further work continues on immersive learning experiences. These resources have been scaffolded to form a cohesive simulation programme that draws on sound pedagogical approaches and blended learning for healthcare professionals.
Conclusion: Immersive learning experiences that recognise and champion diversity must be integrated into the curricular of all healthcare professionals to promote the highest standards of patient care. Meeting this demand with innovative, immersive technology demands collaborative working. This cross-school alliance has produced a learning experience that can work towards reducing health inequalities, promoting independence, and championing inclusive practice.

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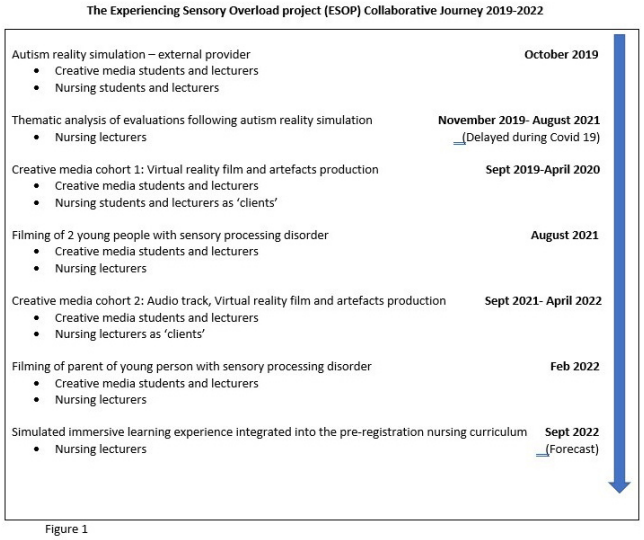

Figure 1: The experiencing sensory overload project (ESOP) collaborative journey 2019–2022

FROM VIRTUAL REALITY TO FIRST CATARACT SURGERY; TRAINEE PERSPECTIVE FROM A DEVELOPING COUNTRY

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Background: Cataract surgery is one of the most performed procedure worldwide with a fascinating evolution in the use of technology [1]. EyeSi is a high-fidelity, task-oriented, virtual reality, intraocular surgery simulator widely adopted by residency programs across the developed world for skill development in cataract surgery, with proven effectiveness and decrease in complication rates [2]. We aim to provide a trainee's reflective perspective on learning cataract surgery via virtual reality simulation and performing first real surgery from a low middle-income, developing country [3].
Methods: Simulation training as part of formal residency curriculum was documented, hence ethical approval was exempted. EyeSi course software (V3.0.6) was used for skill development as a self-learning tool, reinforced with real cataract surgery training, documented over a period of 8 months for a single participant. EyeSi provides a binocular microscopic viewing system, with hand-piece instruments and foot pedals of the same configuration as used in operating theatres. The software generates feedback reports for each task using microscopic calibrations inside the model eye.
Results: By the end of the 8-month period, simulation data showed a logged time of 45.7 hours, 74 intraocular lenses injected, 1,581 intraocular tasks completed and 772 capsulorhexis done with complications including 679mm2 of injured corneal area, 113 mm2 of injured lens area and 862 posterior capsule ruptures. In comparison, the real surgery logbook noted 30 intraocular lenses injected, 86 intraocular tasks and 31 capsulorhexis complete with a total of 1 complication and 1 complete cataract case