Dementia and Technology

Co-Creating Immersive Indigenous VR Stories to Enhance Meaningful Engagement in Acute Care Settings L. Hung, A. Soni, S. Arora, J.O.Y Wong, J. Wong, J. Zeid, G. Kendre, K. Lima, B. Chakraborty, K. Yan, S. Laderas, L. Ren, L. Jackson, B. Best, L. Fisher, S. Freeman, W.B. Mortenson, A. Lim. *Gerontechnology* 25(s)

Purpose Indigenous patients in acute care often experience distress related to separation from community, limited access to culturally meaningful activities, and a lack of culturally grounded engagement tools [1]. Virtual reality (VR) has been shown to support wellbeing for older adults [2], however, Indigenous-specific content remains limited. This study aimed to co-design immersive Indigenous VR stories with Indigenous partners and to explore how these stories influence engagement, cultural connection, and perceived well-being among older Indigenous and non-Indigenous patients in acute care. Acute care was chosen as the fast-paced environment can leave culturally specific engagement needs unmet, contributing to experiences of cultural marginalisation for Indigenous patients [3]. **Method** Guided by a Participatory Action Research approach, the team collaborated with Indigenous Knowledge Keepers, community members, and cultural partners to co-create VR storytelling videos. The VR stories featured Indigenous artifacts and teachings, with Knowledge Keepers sharing cultural narratives (canoe artifacts and the significance of water, bear artifacts and personal storytelling, traditional drum making). Filming took place at the UBC Museum of Anthropology and in local Indigenous communities. The VR stories were shared with 26 older adult patients (five Indigenous, twenty one non-Indigenous) and ten clinical staff using either a VR headset or projector. Semi-structured qualitative interviews were conducted with patients and staff to examine their experiences and perceived impacts on well-being and cultural connection. Data was analyzed using a reflexive thematic analysis. Trustworthiness strategies were applied to ensure rigor and cultural relevance [4]. The project upheld credibility through prolonged engagement. At the start of the work, the research team engaged in a series of workshops led by an Indigenous partner, which provided cultural orientation, introduced principles of storytelling, and offered guidance on respectfully representing Indigenous narratives in VR. Dependability was maintained by documenting weekly team meetings, which provided structured opportunities to reflect on design decisions, individual bias, and the integration of Indigenous knowledge. **Results and Discussion** Immersive technologies enabled deeper emotional and cultural connection to the stories. However, viewing modality preferences (headset vs projector), content themes, and video attributes (pacing, subtitles) varied both between and within participant groups. This reinforced the need for multiple modalities and tailored support for older adults and staff alike. Limited familiarity with VR contributed to initial hesitation among some participants, which was successfully mitigated through brief technology demonstrations. Indigenous patients described the VR stories as culturally affirming and emotionally grounding, emphasizing feelings of recognition, belonging, and connection to community values. Non-Indigenous patients reported heightened cultural curiosity and appreciation. Staff viewed the VR stories as a meaningful engagement tool that supported rapport-building and enriched interactions with patients. Team members involved in co-creation noted the process as deeply impactful, reinforcing the importance of community partnership and cultural guidance. These findings highlight VR Indigenous storytelling as a feasible and culturally responsive approach to strengthening social connection in acute care. Continued analysis will inform future implementation in both acute care and other clinical settings.

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