# Integrating Virtual Reality in an Institutional Healthcare Education Research Online Conference

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Background: In response to Covid-19, traditional online communications platforms were rapidly deployed to ensure continued presentation of peer-reviewed scholarship and professional networking. However, teleconferencing fatigue emerged<sup>1</sup> and alternatives to two-dimensional interfaces were evaluated.<sup>2</sup> The use of virtual reality (VR) for online poster presentations was implemented at a three-day institutional healthcare education research (IHER) conference to enhance social interactions and better emulate in-person presentations.<sup>3</sup>

**Purpose:** To examine the impact of a virtual reality poster presentation on an institutional online conference in healthcare education research.

## Design

- In 2021, 181 participants attended IHER conference
- New VR speed poster presentation platform
- 3D avatar-based Virbela software
- > 20 participants attended VR session (Fig 1) • Four-item survey on 7-pt scale (1=SA. 7=SD)
  - IBM<sup>®</sup> SPSS<sup>®</sup> 26.0 used for analysis
- A password-protected private meeting space
  - Phase-shifting seating configurations
  - Protected private volume areas
  - Three digital presentation boards
  - o 3D-spatialized audio
- The customizable avatars had built-in functions (Fig 2)





Chat

Interacting with Gesturing Presentation Boards

knowledge changing life

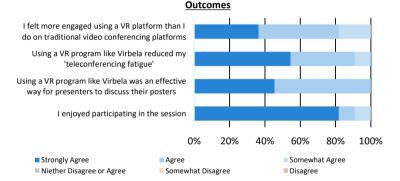


Fig 1: VR Participant Survey Responses

- The VR session was rated to . . .
- Be an effective poster presentation platform (median=6.0)
- Reduce teleconferencing fatigue (median=6.0)
- Be more engaging than Zoom (median=6.0)
- Satisfaction was significantly correlated (p<0.050) with . . .</p>
- Effectiveness (rho=0.5)
  - Reducing fatigue (rho=0.7)



Fig 2: Speed Poster Virtual Reality Session

## Strengths and Limitations

- > The VR presentations were executed with no logistical problems and generated effective discussion
- One-on-one conversations were easier to have in the VR. platform than in Zoom

## Website: https://www.mcw.edu/IHER2021

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2. Goedele Roos, Julianna Oláh, Rebecca Ingle, Rika Kobavashi, Milica Feldt, Online Conferences - Towards a New (Virtual) Reality, Computational and Theoretical Chemistry 2020:1189:112975 https://doi.org/10.1016/i.comptc.2020.112975

3. S. Adam Smith & Neil W. Mulligan, Immersion, Presence, and Episodic Memory in Virtual Reality Environments, Memory, 2021;29:8, 983-1005, DOI: 10.1080/09658211.2021.1953535