

Misericordia University

Misericordia Digital Commons

Student Research Poster Presentations 2021

Student Research Poster Presentations

2021

Efficacy of Using Virtual Reality Systems to Enhance Balance in Individuals With Vestibular Disorders: A Systematic Review

Alexander Fitch

Leanne Forsyth

Jennifer Freeman

Kailey Vogl

Follow this and additional works at: https://digitalcommons.misericordia.edu/research_posters2021



Part of the [Medicine and Health Sciences Commons](#)

Recommended Citation

Fitch, Alexander; Forsyth, Leanne; Freeman, Jennifer; and Vogl, Kailey, "Efficacy of Using Virtual Reality Systems to Enhance Balance in Individuals With Vestibular Disorders: A Systematic Review" (2021).

Student Research Poster Presentations 2021. 18.

https://digitalcommons.misericordia.edu/research_posters2021/18

This Poster is brought to you for free and open access by the Student Research Poster Presentations at Misericordia Digital Commons. It has been accepted for inclusion in Student Research Poster Presentations 2021 by an authorized administrator of Misericordia Digital Commons. For more information, please contact mcech@misericordia.edu.

Efficacy of using virtual reality systems to enhance balance in individuals with vestibular disorders: A systematic review

BACKGROUND

- Diminished balance is a common impairment associated with vestibular disorders. Previous systematic reviews have analyzed the efficacy of virtual reality (VR) systems in vestibular rehabilitation but have not focused on improvement in balance utilizing VR systems in individuals with peripheral vestibular disorders.

METHODS

- Two searches conducted - August 2020 & January 2021
- Databases Searched: EBSCOhost (CINAHL Complete and Medline) and PubMed
- Systematic review included 10 articles after inclusion and exclusion criteria were applied.

RESULTS

- VR-based interventions are effective in improving balance in individuals with peripheral vestibular disorders.
- Future research is needed in order to determine which outcome measures best capture virtual reality induced improvements for balance in individuals with peripheral vestibular disorders.

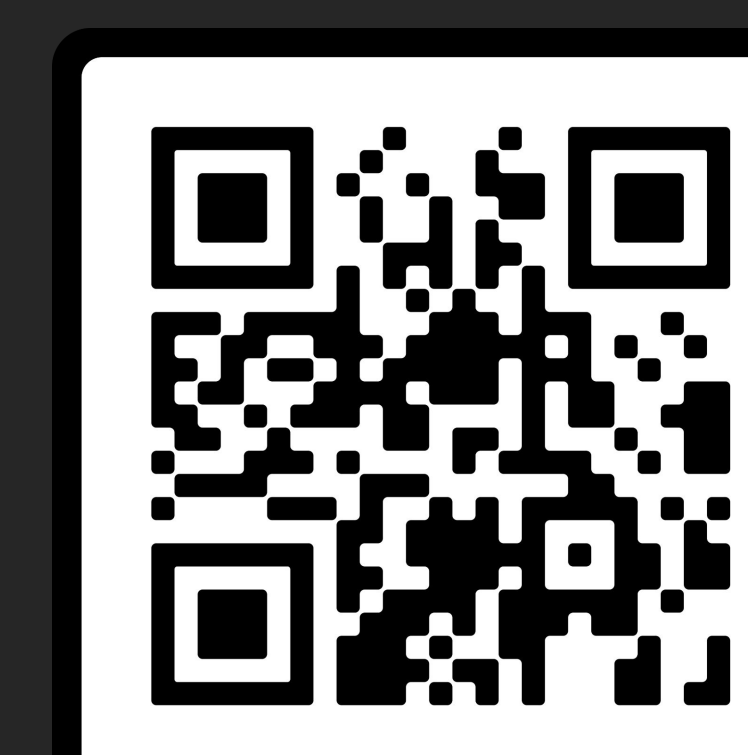
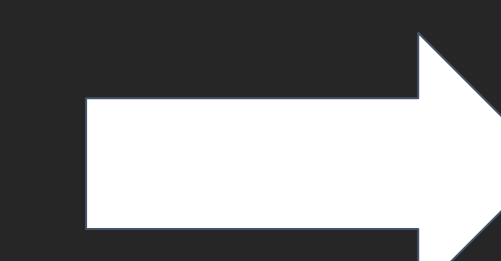
CONCLUSION

- VR treatment is an effective form of rehabilitation to improve balance for individuals with peripheral vestibular disorders, especially when used in conjunction with conventional vestibular rehabilitation protocols.

Virtual reality is an effective treatment for balance impairments in patients with peripheral vestibular disorders.



Take a picture to download the full paper



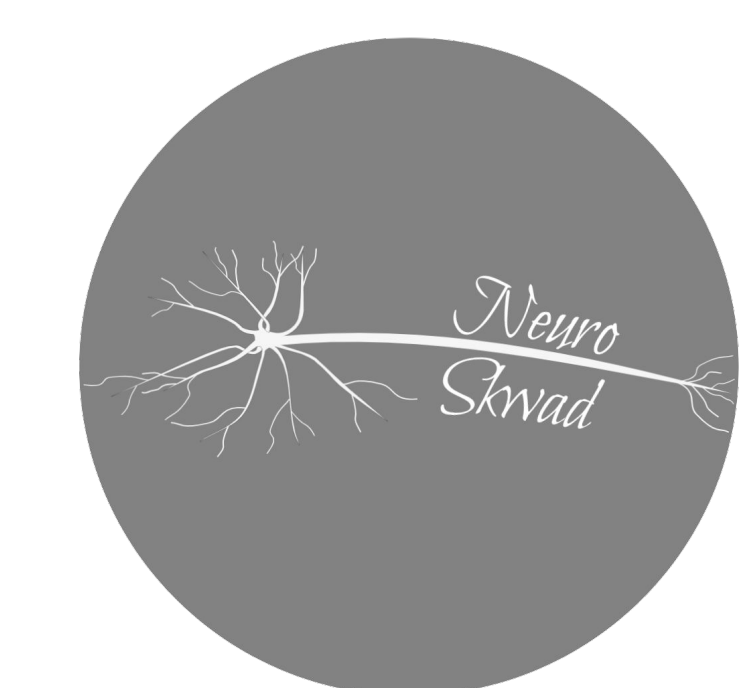
Full-Text

CONVENTIONAL VESTIBULAR REHABILITATION

- Well-researched and supported
- Cost-effective
- Specific protocols

VIRTUAL REALITY

- Fun and engaging
- Encourages adherence to rehabilitation program
- Improves rehabilitation outcomes



Alexander Fitch, SPT
Leanne Forsyth, SPT
Jennifer Freeman SPT
Kailey Vogl, SPT
Heather Fritz, PT, DPT