

Increasing undergraduate understanding of sensory impairment through interactive learning

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Introduction

Visual, hearing, and sensory impairments are very commonly seen in the older adult population.[1] These often negatively impact a patient's experience within the healthcare system; their outcomes may be poorer and their ability to carry out Activities of Daily Living (ADLs)[2] are affected, such as their ability to read medication labels, navigate their surroundings, follow instructions and communicate with others. Subsequently, this results in health inequality in these patient groups.

Aim

To increase the knowledge, understanding and empathy in fourth year medical students regarding this issue during their Geriatric Medicine teaching day through an interactive sensory impairment workshop.

Methods

- Interactive workshop with a case-based discussion format, regarding a patient with visual, sensory, and hearing impairments
- Interactive tasks included:
 - Simulated telephone consultation with earplugs +/- headphones
 - Sorting medications into pill box whilst wearing gloves and visual impairment goggle
- Effectiveness measured using pre- and post-workshop questionnaires, rating the medical student's confidence on a scale of 1-10 (1 – not confident at all, 10 – very confident).
 - describing sensory impairments that affect older adults
 - describing the impact sensory impairment can have on a patient's healthcare journey
 - identifying prescribing pitfalls in patients with sensory impairments
 - describing impact on day-to-day activities of sensory impairment

Results

As seen in Figure 1, confidence in fourth year medical students increased by greater than 50% in all parameters measured. They felt their confidence increased most in being able to identify prescribing pitfalls in patients with sensory impairment, with an average increase of 94% in this area.

Pre- vs Post-workshop Confidence Ratings

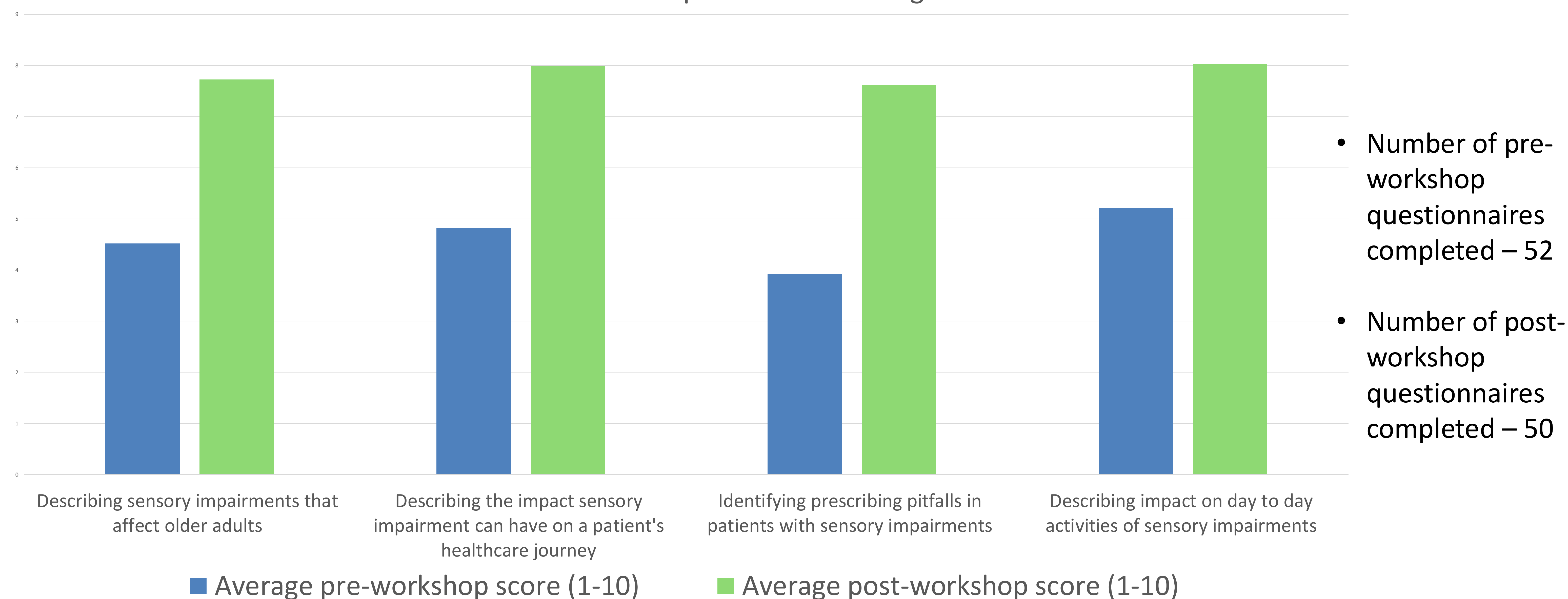


Figure 1: Bar chart comparing average medical student confidence ratings in describing various parameters relating to sensory impairment before and after completing the sensory impairment workshop.

Conclusions

- Interactive learning is an effective teaching method to demonstrate healthcare inequality faced in relation to sensory impairment.
- Confidence significantly increased in relation to medical student ability to describe the impact sensory impairment has on older adults, and where the pitfalls lie in managing these patients in various healthcare settings.

References

1. Public Health England [PDF]. *Health Inequalities: Sensory Impairments*. [cited 14th March 2025]. Available from: <https://healthierlives.phe.org.uk>.
2. Yun Seo Jang, Yun I, Yu Shin Park, Park EC, Jang SI. *Association between changes in sensory impairment and functional disability in older adults: A longitudinal study*. Archives of gerontology and geriatrics. 2023 Nov 1;114:105108–8.