Enhancing healthcare accessibility: A student-led exploration of audio description techniques for deafblind individuals in clinical settings

Dorothy NGAN So-yan | Guide for the Deafblind

Nursing Student, School of Nursing, Tung Wah College

Supervised by

Dr. Alice CHAN Mei-ling

Senior Lecturer, School of Nursing, Tung Wah College

2025.7.5



Outline

- Background
- Aim
- Literature review
- Methods
- Results
- Discussion
- Acknowledgement
- Q&A

Background

- In Hong Kong (2020)
  - 47,600 persons with visual difficulty
  - 47,900 persons with hearing difficulty
- Deafblindness: a spectrum disability of duel sensory loss
- Require specialized and personalized services
- Lack of training in nursing curriculum
- Audio description (AD)
  - A supportive tool for the blind and deafblind
  - A form of audiovisual translation

(*Audio Description Association (Hong Kong)*, 2024; Census and Statistic Department, 2021; Mohammadi et al., 2024)



Aim

- To assess the effectiveness of audio description(AD) techniques in supplementing visual information when providing nursing care to the individuals with deafblindness

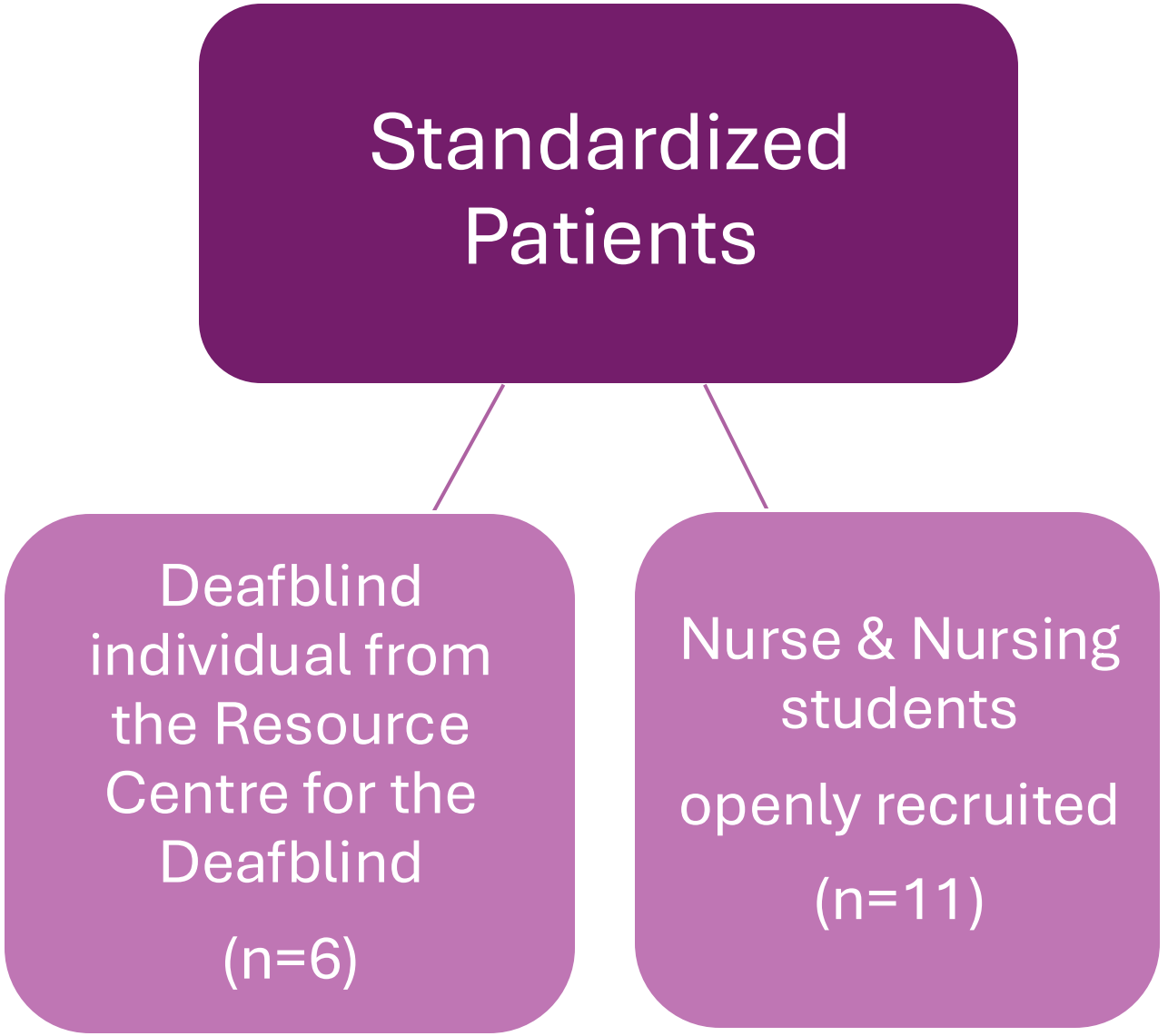
Literature review

- Healthcare professional's inadequate understanding of the needs of people with deafblindness
  - Restricted access to information & healthcare amenities
  - Feelings of isolation
  - Absence of advocacy
  - Instances of misunderstanding by others
- Experiential learning
  - Learning through practical engagement
  - Building knowledge by transforming experience

(SHARTS-HOPKO et al., 2010; Chan, 2023; Kolb, 1984)

Methods

- Study design
  - A pretest-posttest design
  - Questionnaires with open-end questions
- Participants
  - Drop out : nursing students (n= 3)
  - Apr – Jul 2024
  - Nursing Laboratories at Tung Wah College



Methods

- Intervention
  - Providing nursing care with AD to standardized patients
- Procedures
  - Two sessions of a 2-hr workshop on AD technique and experiential learning activities to the standardized patients
  - One session of a 2-hr experiential learning where nursing students provide nursing care to the standardized patients
- Instruments
  - Questionnaires consulted with three Deafblind advisors with various degree of severity of Deafblindness
  - Questionnaires completed by standardized patients and collected by helpers who are nursing students
  - Data analysed by paired t-test



Results

- The responses of “In which aspect of descriptive components included can help the patient with deaf blindness in knowing more essential visual information?” indicated a significant difference, $t(16) = 7.59$, $p < .001$
- “Knowing the form and colour of medicine, the shape of assistive device, to enhance the medical compliance and safety” was most important, $t(16) = 2.22$, $p = .041$
- AD could help the deafblind individuals to know more essential visual information related to healthcare settings and routines

Discussion

- Questionnaires with 10 sets of questions were used to assess the basic knowledge and concepts about AD application before and after the workshops and experiential learning activities
- In the accuracy check of visual information received by the standardized patients through AD, the average accuracy rate is 90%
- “Knowing the surrounding environment and level of privacy” & “Knowing the location, facilities and environment of the toilet” were also considered very important in description
- Potentials to add AD in nursing curriculum to promote holistic care to the people with deafblindness

Strengths & Limitation

- Strengths
  - A holistic competency development in personal and professional perspectives for nursing students
  - Provide an experiential learning to nursing students
- Limitation
  - Small population size, accessibility, communication characteristics of the deafblind
  - No control group for comparison : Safety of the standardized patients
- Recommendation for future study
  - Well planned study with larger sample size, with rigorous measurement tools are needed to ensure results can be more reliable

Sponsor

Student Innovation Project Fund,

Tung Wah College



Acknowledgment

- LetSignLanguage
- Resources Centre for the Deafblind, Hong Kong Society for the Blind
- Arts with the Disabled Association Hong Kong
- Lingnan Entrepreneurship Initiative, Lingnan University
- CHAN Kit-mei, Audio Describer
- CHAU Pui-kwan, Deafblind Guide
- WONG Hin-man, Deafblind Guide
- WONG Man-ling, Deafblind Guide





Q&A

References

Audio Description Association (Hong Kong). (2024). Audio description services and accessibility. Retrieved June 22, 2025, from https://audeahk.org.hk/index/en/what-is-audio-description/

Census and Statistics Department. (2021). *Persons with disabilities and chronic diseases*. Retrieved June 22, 2025, from www.censtatd.gov.hk

Chan, C. K. Y. (2023). Assessment for experiential learning. Taylor & Francis.

Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Prentice-Hall.

Mohammadi, M. A., Heidarzadeh, M., Mehri, S., & Shamshiri, M. (2024). Exploring the meaning of care among lived experiences of patients with blindness: An interpretive phenomenological study. Frontiers of Nursing, 11(3), 319–326. https://doi.org/10.2478/fon-2024-0035

SHARTS-HOPKO, N. C., SMELTZER, S., OTT, B. B., ZIMMERMAN, V., & DUFFIN, J. (2010). Healthcare experiences of women with visual impairment. Clinical Nurse Specialist, 24(3), 149–153. https://doi.org/10.1097/NUR.0b013e3181d82b89