



Programme: MSc Public Health and Social Care in Practice

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**Assignment Title: Health at Your Fingertips: A Digital Solution for Deaf Communities
Component 2 Poster**

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ClearCare
Inclusive Health for Deaf Communities

Health at Your Fingertips: A Digital Solution for Deaf Communities

Background-Hearing loss is a serious global public health concern, impacting about 430 million people globally and projected to reach 700 million by 2050 (WHO, 2021). In the United Kingdom, over 12 million adults have hearing loss, accounting for nearly one in every five people (RNID, 2023). Deaf people frequently face major healthcare challenges owing to systems that rely on spoken communication and telephone-based appointments, resulting in care delays and lower health outcomes (McKee et al., 2020). Previous approaches have included sign language interpreters, text relay services, and digital platforms like the NHS App. However, many prominent apps do not provide accessibility features for deaf users. The ClearCare App bridges this gap by providing British Sign Language (BSL) video consultations, AI speech-to-text transcription, and visual health notifications.



Health Promotion Values and Principles

Health promotion seeks to enable individuals and communities to take responsibility of their health through equity, engagement, and accessibility (Nutbeam 2000). These ideas are represented in the Ottawa Charter for Health Promotion, which focuses on minimising health disparities and encouraging informed health decisions.

The ClearCare App supports these ideals by enabling accessible communication via BSL consultations and visual notifications, allowing deaf users to connect independently with healthcare experts. By providing visual educational resources in BSL and simplifying icon-based navigation, the app promotes health literacy and inclusion. Furthermore, the technology addresses digital health disparities by customising healthcare services to the communication needs of deaf communities, ensuring equitable access to healthcare information and services (Kuenburg et al., 2016).

Expected Outcome-Applying behavioural change theory to the ClearCare App is projected to increase healthcare involvement among the deaf. The intervention has the potential to promote health service utilisation, early diagnosis, and adherence to treatment programs by lowering communication barriers and delivering easily available health information. However, the results may differ based on digital literacy and access to cellphones or internet connectivity. Addressing these structural hurdles will be critical for increasing the intervention's public health impact and reducing digital health disparities.

Conclusion-Digital technologies like ClearCare have significant implications for healthcare policy, education, and research. Policymakers should promote inclusive digital health measures that facilitate accessible communication for impaired people. To be most effective, healthcare practitioners must receive training in digital communication technologies as well as deaf awareness. Future study should look at the long-term impact of digital accessibility technologies on health outcomes and healthcare involvement in deaf populations, with the goal of continuously improving equitable digital health services.



Behavioural Change Theory-The Health Belief Model (HBM) is a valuable framework for understanding how digital interventions such as ClearCare can influence health behaviour. According to the paradigm, individuals are more likely to engage in health-promoting behaviours when they perceive a health hazard, believe the advantages of action outweigh the barriers, and get cues to act (Rosenstock, 1974).

The ClearCare solution reduces perceived barriers to healthcare, such as communication issues, using BSL video consultations and AI speech-to-text technology. This accessibility gives individuals more confidence in getting medical help. Visual messages for appointments, prescription reminders, and health alerts serve as prompts to action, encouraging people to use healthcare services on a regular basis. Educational tools in BSL promote perceived benefits by increasing awareness of health issues and preventive practices. Furthermore, the software promotes self-efficacy, a crucial component of the HBM, by allowing deaf users to communicate freely with healthcare practitioners and effectively manage their health decisions.

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