Topic Exploration Report

Topic explorations are designed to provide a high-level briefing on new topics submitted for consideration by Health Technology Wales. The main objectives of this report are to:

1. Inform discussions on new topics received by HTW.
2. Determine the quantity and type of evidence available on a topic.
3. Assess the topic against HTW selection criteria.

Topic:	Deaf Mental Health Services**:** Interpreter on Wheels/ InterpreterNow
Topic exploration report number:	TER073
Referrer:	Julia M Terry, Associate Professor, Swansea University
Topic exploration undertaken by:	Health Technology Wales

Aim of Search

Video remote interpreting and video relay services support British Sign Language (BSL) users in accessing services, communicating during appointments and understanding the information they receive by facilitating communication between BSL users and non-users. BSL users sign a message through video relay which is translated into speech by apps such as InterpreterNow. Speech can also be translated into BSL by the same mechanism. Video Remote Interpreting (VRI) supports one-to-one communication between BSL users and non-BSL users who are in the same location. Video Relay Service (VRS) supports communication between BSL users and non-BSL users who are in different locations (for example, a deaf BSL user calling a GP surgery to make an appointment).

Health Technology Wales researchers searched for evidence on clinical and cost effectiveness of the use of video remote interpreting and video relay services (e.g. InterpreterNow and Interpreter on Wheels) in addition to standard of care compared with standard of care (face-to-face interpreting) for deaf people with mental health problems.

Summary of Findings

An initial high-level search was carried out, focusing on relevant secondary evidence (systematic reviews, technology assessments, evidence-based guidelines). No guidelines specifically referred to the use of VRI, VRS, InterpreterNow or Interpreter on Wheels. NICE CG136 recommends that diagnoses are delivered in an accessible format. Of three potentially relevant reviews, one explicitly considers deaf people with mental health problems. Further investigation of this study is required to comment on its quality. Searches for primary studies

and ongoing studies were conducted. One potentially relevant study was identified, but the population could not be ascertained. A summary of each type of evidence follows.

Guidelines

No guidelines specifically mentioned 'Interpreter on Wheels', 'Interpreter Now', VRI or VRS. The NICE guideline assessment and management of hearing loss in adults (NG98), published in June 2018, refers to recommendations from CG136: Service user experience in adult mental health: improving the experience of care for people using adult mental health services (2011). The evidence informing the guideline was reviewed in 2016 and no new evidence was found which affected the recommendations. Recommendation 1.2.2 states what when people are sent an appointment letter for mental health services it should: ...ask if they require anything to support their attendance (for example, an interpreter, hearing loop, wider access)...

Recommendation 1.3.3 states that when carrying out an assessment: ...an explanation and written material in an accessible format should be given about any diagnosis given...

NICE NG98 states that the principles on tailoring healthcare services for each person should be followed, as outlined in the patient experience guideline. This may include, for example, establishing the most effective way of communicating with each person, including the use of hearing loop systems and assistive listening devices.

Technology assessments, systematic reviews, reviews and health economic evaluations.

A Medline search, using the MeSH term 'hearing disorders', for systematic reviews and economic studies for 'video remote interpreting' or 'video relay service' yielded seven results. Eight further results were obtained when a search for systematic reviews and economic studies for 'video remote interpreting' or 'video relay service' or 'communication barriers' or 'remote consultation' or 'translating' or 'communication aids for disabled' or 'telecommunications' or 'telemedicine' was conducted.

The titles and abstracts of these results were reviewed and three studies were deemed potentially relevant. No relevant technology assessments or health economic evaluations were identified.

One systematic review of 103 telehealth studies found that 32.1% of the studies focused on hearing. However, it is unclear whether these studies focus on telemental health services. The included studies focused mainly on assessment and intervention. The systematic review concludes that 85.5% of the included studies reported that telehealth has advantages over non-telehealth, while 13.6% concluded that the advantages were uncertain. The study also commented that technology, training, regulation and acceptability remain significant barriers.

The second potentially relevant study evaluates the efficacy of telehealth in delivering psychoeducational objectives of mental health education in the deaf population. While the methods used and the exact comparator is unclear, the study concludes that telehealth can be regarded as efficacious and cost effective. The study further concludes that telehealth results in participant satisfaction.

The third potentially relevant study describes the impact of language barriers on access to medical care and summarises the legal and ethical duties of medical providers to assist deaf people. It also discusses the benefits of using professional interpreting services. The population covers all deaf people, with no specific reference to deaf people accessing mental health services.

Primary studies

A Medline search, using the MeSH term 'hearing disorders', for RCTs and observational studies of 'video remote interpreting' or 'video relay service' or 'communication barriers' or 'remote consultation' or 'translating' or 'communication aids for disabled' or 'telecommunications' or 'telemedicine' yielded nine results. The titles and abstracts were reviewed and no studies were deemed relevant.

One potentially relevant study was identified in the Cochrane library. The quasi-randomised controlled study in 241 patients in Spain compared remote medical interpretation services by trained interpreters via telephone and videoconference to those provided face-to-face. The quality of the encounters were rated by the participants and interviews were conducted in a subset of 30 patients. The study concludes that patients rated remote and face-to-face interpretations the same, while providers and inerpreters rated in-person more highly. It is unclear whether the population of this study is relevant as it is not clearly stated.

Ongoing studies

No relevant ongoing studies were identified.

Other

InterpreterNow suggest acute specialist and non-specialist trusts, foundation trusts and mental health trusts as possible settings where the application might be used. InterpreterNow state that the application is not intended to replace face-to-face interpreting and that 'VRI should only be used when nothing else would happen'. The website also refers to a Department of Health research project which aims to assess the impact of access to VRS and VRI in a large cohort of deaf people.

Conclusions

Four potentially relevant studies were identified, with varying study designs. A systematic review of telehealth studies found that around 33 studies focused on hearing, though it is not clear that these studies will refer deaf people with mental health problems. One study, of unknown methodological design and quality, specifically refers to this population. The applicability of the populations in the remaining studies is unclear. These uncertainties merit further investigation.

No published cost effectiveness evidence was identified which compared VRS, VRI, InterpreterNow or Interpreter on Wheels with the current standard of care.

Areas of Uncertainty

Evidence may have been identified if a broader population than deaf people with mental health problems had been considered.

Other similar interventions which are classed as tele-mental health services might have been omitted.

The most relevant comparator is not clear. The current standard of care might be face-to-face appointment with a mental health professional BSL user, or face-to-face appointment with a mental health professional with a BSL interpreter present.

It is not certain whether the interventions are intended as an adjunct to face-to-face appointments or as a replacement of face-to-face appointments.

Feasibility of Technology Assessment

Health Technology Wales researchers noted that the technologies have the potential to improve clinical outcomes, as adopting the technologies could reduce the delay to accessing appropriate care.

The budget impact is unclear as both the cost of the service and the size of the population affected are uncertain. The technology is in use within the NHS in England, suggesting that it offers value for money. **Video conferencing equipment** or tablets/laptops, and internet provision may be required. If it is possible to identify the number of short notice **appointment cancellations** due to lack of adequate interpreting then it may be possible to calculate cost savings. The difference in costs will be for reduced **travel time**, and equipment. The staff costs for the interpreter during the appointment will be the same and this is likely to be the cost driver for providing interpreter services.

In Wales it is estimated that approximately **12,000 people** with hearing loss are referred to primary mental health support services per annum (with around 1,500 being admitted to inpatient mental health services). However it is not known how many deaf people require an interpreter. Also these calculations do not take into consideration the possibility that deaf people may be more likely to experience mental health issues.

Equity is a key consideration for this topic, as the technology has potential to significantly increase **equity of access** to services for deaf individuals. However, consistent internet provision may be a problem in rural locations.

The topic proposer did not identify any evidence to support Interpreter on Wheels or Interpreter Now. The applicability of four studies identified during topic exploration is uncertain. No health economic studies were identified. Health Technology Wales researchers therefore judged that there is not likely to be sufficient evidence on which to base a health technology assessment.

HTW's Assessment Group concluded not to progress this topic further.

Brief literature search results

Resource	Results
HTA organisations	
Healthcare Improvement Scotland:	No relevant results identified.
Health Technology Assessment Group	No relevant results identified.
Health Information and Quality Authority	No relevant results identified.
UK guidelines and guidance	
SIGN	No relevant results identified.
NICE	Hearing loss in adults: assessment and management (2018) NICE guideline NG98 Service user experience in adult mental health: improving the experience of care for people using adult NHS mental health services (2011) NICE guideline CG136
Secondary literature and economic evaluations	
EUnetHTA	No relevant results identified.
ECRI	No relevant results identified.
Cochrane library	No relevant results identified.
Medline	15 titles and abstracts were reviewed and three studies were deemed potentially relevant: A systematic review of the use of telehealth in speech, language and hearing sciences. [Review] Molini-Avejonas DR; Rondon-Melo S; Amato CA; Samelli AG. Journal of Telemedicine & Telecare. 21(7):367-76, 2015 Oct. Telehealth and the deaf: a comparison study. Wilson JA; Wells MG. Journal of Deaf Studies & Deaf Education. 14(3):386-402, 2009. Comparative Study. Evaluation Studies. Journal Article. Research Support, Non-U.S. Gov't] UI: 19398534 Healthcare access for deaf patients - The legal and ethical perspectives. Laur A. Medico-Legal Journal. 86(1):36-41, 2018 Mar. [Journal Article] Twelve studies were excluded following the review of abstracts. One abstract referred to a cross-sectional study of 555 deaf people in the USA which aimed to assess satisfaction with the quality of

	video remote interpreting technology in health care. 41% of respondents were satisfied with the quality of video remote interpreting. The study was excluded as it is non-comparative. One abstract was excluded as it addressed psychosocial variables related to the adoption of video relay services. Two further studies were excluded as they were non-comparative (n=2). Two abstracts were excluded as they did not consider the correct population (non-English-speaking people, n=1; limited English proficiency, n=1) One abstract was excluded as it was a protocol. Five abstracts were excluded as they considered the wrong intervention.
Primary studies	
Medline	The titles and abstracts of nine search results were reviewed and no studies were deemed relevant.
Cochrane library	A search identified 13 trials, one of which was considered potentially relevant: Comparing in-person, video, and telephonic medical interpretation C Locatis, D Williamson, C Gould-Kabler, L Zone-Smith, I Detzler, J Roberson, R Maisiak, M Ackerman Journal of general internal medicine, **2010**, 25(4), 345-350 | added to CENTRAL: 31 October 2011 | 2011 Issue 4
Ongoing research	
PROSPERO database	No relevant results identified.
Clinicaltrials.gov	No relevant results identified.
Other	
https://www.actiononhearingloss.org.uk/	No results were returned using the search term 'interpreter on wheels'. Information was available for the BSL interpreting app InterpreterNow. Advice on how surgeries might be made more accessible was also available: https://www.actiononhearingloss.org.uk/how-we-help/health-and-social-care-professionals/gps/making-your-surgery-accessible/
https://interpreternow.co.uk/	Further information on the service offered by InterpreterNow and the video Remote Interpreting and Video Relay Service technologies used is available on the InterpreterNow website.

Date of search:	08/04/2019
Concepts used:	'interpreter on wheels', 'interpreter now' or 'interpreternow', 'video remote interpreting', 'video relay service'

	MeSH Subject Headings: 'Remote consultation', 'communication barriers', 'translating', 'telecommunications', 'telemedicine' 'disabled persons', 'hearing disorders', 'deaf-blind disorders', 'communication aids for disabled' 'telemedicine'