



# What is the evidence underpinning clinical assessment of mental health of deaf adults with learning disabilities: A scoping review protocol

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# INPLASY PROTOCOL

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**Corresponding author:**  
Jackie Wan Brown

jackie.brown@postgrad.manchester.ac.uk

**Author Affiliation:**  
University of Manchester.

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**Conflicts of interest:**  
None declared.

## What is the evidence underpinning clinical assessment of mental health of deaf adults with learning disabilities: A scoping review protocol

Wan Brown, J<sup>1</sup>; Rogers, KD<sup>2</sup>; Young, A<sup>3</sup>.

**Review question / Objective:** This scoping review aims to explore the literature to identify the types, scope and quality of evidence underpinning clinical assessment of deaf adults with learning disabilities, with or without autism, with mental health issues and/or challenging behaviour. Deaf adults are included in the review regardless of their communication modality, e.g. signed or spoken language, or other methods. The results of this review will inform considerations for future research and inform clinical practice. As an experiential type review, the PICO framework (Richardson et al. 1995) guides the question formulation. The review question is: what are the types, quality and extent of evidence that underpin clinical assessment of the mental health of deaf adults with learning disabilities?

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 01 June 2022 and was last updated on 01 June 2022 (registration number INPLASY202260007).

### INTRODUCTION

**Review question / Objective:** This scoping review aims to explore the literature to identify the types, scope and quality of evidence underpinning clinical assessment of deaf adults with learning disabilities, with or without autism, with mental health issues and/or challenging behaviour. Deaf

adults are included in the review regardless of their communication modality, e.g. signed or spoken language, or other methods. The results of this review will inform considerations for future research and inform clinical practice. As an experiential type review, the PICO framework (Richardson et al. 1995) guides the question formulation. The review

question is: what are the types, quality and extent of evidence that underpin clinical assessment of the mental health of deaf adults with learning disabilities?

**Rationale:** Accurate and dignified clinical assessment, guided by evidence based practice, is a standard to which healthcare professionals aspire (see Codes of Conduct for regulatory bodies such as NMC, GMC). (Clinical) assessment in mental health practice, underpinned by the recovery approach, is the first step in a collaborative, systematic process with the service user; it seeks to establish the presenting problem, social and environmental context, physical health, history, mental state examination and includes an assessment of risk (Trenoweth & Moone, 2017).

This scoping review aims to establish the current evidence base for clinical assessment of deaf adults with learning disabilities, with or without autism, and mental health issues and/or challenging behaviour. Many of this population are not spoken language users.

Adults with learning disabilities are faced with barriers when accessing quality health care, including issues such as environmental access, problems related to communication and poor health professional interactions (Doyle et al. 2016). Adults with learning disabilities who are deaf are subject to additional barriers in healthcare as well as in other areas of life (Rhys-Jones & Baker, 2021). Their needs can be easily overlooked because of additional issues associated with language and communication arising from deafness in conjunction with learning disabilities (Timehin & Timehin, 2004).

The prevalence of mental health problems in deaf people with learning disabilities is not known; however, prevalence in the wider population of adults with learning disabilities was found to be 40.9% (Cooper et al. 2007), of which 40% have some degree of deafness (Carvill, 2001). Similarly, prevalence of mental health problems in the deaf population is higher than that of the hearing population (Fellinger et al. 2012). Additionally, adults who are prelingually deaf (usually, those who were

born deaf) and who did not receive adequate early exposure to language, will not acquire language fluently, whether spoken or signed, and will have a great deal of language dysfluency (Hall et al. 2017). Although the recent introduction of early diagnosis of deafness as a consequence of newborn hearing screening has meant much earlier intervention to support access to language, such benefits are less effective for those with learning disabilities. Dysfluency is common in deaf adults of all ages.

As a consequence, clinicians attempting to assess their mental health will not be able to conduct their mental health assessment in their usual way (Rhys-Jones & Baker, 2021) and will have extreme difficulty determining whether the deaf person's language problems are due to mental illness, language deprivation, or any other reason, leading to misdiagnosis, including of psychosis (Glickman, 2007). Difficulties in accurate assessment leading to misdiagnosis and subsequent detention of deaf adults who use sign language has been documented elsewhere (Anglemyer & Crespi, 2018). The literature pertaining to Deaf adults with mental health problems is limited; however, deaf adults with learning disabilities, with or without autism, are discussed much less.

The NICE guideline 'Mental health problems in people with learning disabilities: prevention, assessment and management' (2016) aims to improve assessment and support for mental health conditions for people with learning disabilities; it states staff working with this population should be fully informed about sensory impairments, including making adjustments to accommodate such impairments. However, the guidance does not explain how to do this, in any depth.

This scoping review aims to establish the current evidence base specifically pertaining to deaf adults (regardless of their communication method/preference) who also have learning disabilities and experience mental health problems and/or challenging behaviour. It will ascertain what, if any, gaps exist in effective clinical assessment of mental health problems amongst deaf adults with learning

disabilities and explore the subsequent implications for practice.

**Condition being studied:** This protocol refers to deaf adults with learning disabilities, with or without autism, and mental health problems and/or challenging behaviour. 'Deaf' is understood to refer to all levels of deafness, age of onset and the full range of communication/language that a deaf adult may use (e.g. signed, spoken, gestural, assistive electronic, pictorial and others as yet unspecified). Challenging behaviour in people with learning disabilities has been documented as occurring independently of mental health problems; however, the relationship between challenging behaviour and mental health problems in this population is highly complex and research has yet to definitively distinguish the two constructs (Bowring et al. 2019). Thus, the present scoping review will include literature pertaining to challenging behaviour whether or not connected with a mental health diagnosis. Specifically, the review is focused on clinical assessment, whether pre-diagnosis, diagnostic, or subsequently with respect to review and improvement.

## METHODS

**Search strategy:** The following research databases will be searched: Applied Social Sciences Index and Abstracts (ASSIA), American Psychological Association (APA), CINAHL, EThOS, Medline, OpenGrey, PsycInfo, PubMed – National Library of Medicine, Scopus and Web of Science Social Sciences Citation Index (SSCI). Forward citation sources from reference lists of identified articles will be searched. The systematic literature search will be conducted with the use of free-text words, truncation (e.g. disab\* will generate the words: disabled, disability and disabilities) and also Boolean operators (e.g. AND, OR). This systematic literature review will be supported by Rayyan.ai. Examples of key words include 'learning disab\*', 'deaf', 'mental health'.

**Participant or population:** Adults who are deaf with learning disabilities, with or

without autism, and mental health problems and/or challenging behaviour, regardless of their method of communication, regardless of their degree of deafness, level of learning disability, autism, or challenging behaviour.

**Intervention:** N/A.

**Comparator:** N/A.

**Study designs to be included:** Empirical studies which utilise qualitative, quantitative or mixed methods and meet the inclusion criteria will be included. Literature written by service users, carers, families and professionals will be included. Grey literature that includes clinical guidelines and best practice documents.

**Eligibility criteria:** Inclusion criteria: 1. Empirical studies/literature/grey literature published in English, British Sign Language or American Sign Language pertaining to deaf people with learning disabilities, with or without autism, and mental health problems and/or challenging behaviour. 2. Empirical studies/literature pertaining to deaf people with learning disabilities, with or without autism, and mental health problems and/or challenging behaviour will be included regardless of degree of deafness, age of onset, language/communication use and regardless of degree of learning disability. 3. Date range for item publication: 1990-2022 inclusive. Exclusion criteria: 1. Empirical studies/literature published in languages other than English, British Sign Language or American Sign Language. 2. Empirical studies/literature pertaining to clinical assessment of deaf people with autism who do not have learning disabilities. 3. Empirical studies/literature pertaining to people with learning disabilities, with or without autism, and mental health problems and/or challenging behaviour that do not include deaf people. 4. Literature pertaining to deaf people with mental health problems that does not include people with learning disabilities, with or without autism. 5. Literature (whether written or signed blogs/vlogs) published through social media.

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**Information sources:** Research databases: Applied Social Sciences Index and Abstracts (ASSIA), American Psychological Association (APA), CINAHL, EThOS, Medline, OpenGrey, PsycInfo, PubMed – National Library of Medicine, Scopus, Web of Science Social Sciences Citation Index (SSCI). Grey literature, including guidelines, policies and practice documents. Forward citation sources from key texts will be searched. Pre-existing professional and research knowledge from the authorship team of specialist clinical and research resources will be included if not uncovered during the literature search.

**Main outcome(s):** Any text pertaining to the clinical assessment of the mental health of deaf adults with learning disabilities, with or without autism, and mental health problems and/or challenging behaviour will be identified. Empirical studies will be appraised using the Crowe Critical Appraisal Tool (CCAT). The evidence base underpinning clinical assessment of this population will be established and appraised.

**Additional outcome(s):** Reports that identify requisite factors that enable accurate assessment.

**Data management:** Retrieved records from all database searches will be exported to the software package Endnote, which will remove duplicates automatically, then exported to Rayyan. Records will also be manually checked to ensure no duplicates remain. Selection of studies takes place over two stages and utilises inclusion/exclusion criteria: (i) title and abstract screening will be carried out by two reviewers, independently. Decisions on studies for inclusion will be yes/no or maybe. Reviewers will discuss studies which have conflicting decisions or are rated 'maybe'. A third reviewer will be brought in if agreement cannot be reached. The second stage (ii) entails full text screening. Reasons for exclusion through both stages will be recorded. Following screening, extracted data will be recorded using Microsoft Excel. For studies generating primary data, descriptive data

to be recorded will include year of publication, location, research design, methods, analytical approach, participant characteristics, setting, interventions (if any), comparison group (if any). Outcome data will also be recorded, including results of quantitative and qualitative analyses.

**Quality assessment / Risk of bias analysis:** The Crowe Critical Analysis Tool (CCAT) will be used to assess quality of included studies. The CCAT has been validated for a wide range of quantitative and qualitative study designs (Crowe et al. 2011); however, no scoring will be applied as it is not within the remit of a scoping review. Grey literature and non-empirical literature will not be appraised using formal quality assessment tools.

**Strategy of data synthesis:** Initial searches indicate there are limited data available; a narrative synthesis approach will be used to present the data.

**Subgroup analysis:** As this is a scoping review, there is no plan for subgroup analysis.

**Sensitivity analysis:** As this is a scoping review, there is no plan for sensitivity analysis.

**Language:** Publications in British Sign Language, American Sign Language or written English will be included in the review.

**Country(ies) involved:** United Kingdom.

**Other relevant information:** The first author is a clinical practitioner at South West London and St George's Mental Health Trust.

**Keywords:** Learning Disability(ies); Intellectual Disability(ies); Developmental disability(ies); Deaf; Hard of Hearing; Hearing Loss; Hearing Impairment; Mental Health; Mental Illness; Challenging Behaviour.

**Dissemination plans:** The scoping review findings will be published in peer-reviewed journals and/or presented at conferences.

#### **Contributions of each author:**

**Author 1 – Jackie Wan Brown – JWB** developed the scoping review plan, will carry out the literature searches, study selection, data extraction and quality assessment of studies. JWB will also prepare the manuscript for publication.

Email: jackie.brown@postgrad.manchester.ac.uk

**Author 2 – Katherine Rogers – KR** also supported the development of the scoping review plan, will act as reviewer 2, independently screen studies for selection and will review the manuscript for publication.

Email: katherine.rogers@manchester.ac.uk

**Author 3 – Alys Young – AY** supported the development of the scoping review plan, will review the manuscript for publication and act as reviewer 3.

Email: alys.young@manchester.ac.uk

#### **References:**

Anglemyer E, Crespi C. (2018) Misinterpretation of Psychiatric Illness in Deaf Patients: Two Case Reports. *Case Reports in Psychiatry*. Hindawi.

Bowring DL, Painter J, Hastings RP (2019) Prevalence of Challenging Behaviour in Adults with Intellectual Disabilities, Correlates, and Association with Mental Health. *Current Developmental Disorders Reports*. 6:173-181.

Carvill S (2001) Sensory impairments, intellectual disability and psychiatry. *Journal of Intellectual Disability Research*. 45:467-483.

Cooper S, Smiley E, Morrison J, Williamson A and Allan L. (2007) Mental ill-health in adults with intellectual disabilities: prevalence and associated factors. *British Journal of Psychiatry*. 190, 27-35.

Crowe M, Sheppard L, Campbell A (2011) Reliability analysis for a proposed critical appraisal tool demonstrated value for diverse research designs. *Journal of Clinical Epidemiology*. 65:4, 375-383.

Doyle C, Byrne K, Fleming S, Griffiths C, Horan P and Keenan PM (2016) Enhancing the experience of people with intellectual

disabilities who access health care. *Learning Disability Practice*. 19:6, 33-38.

Fellinger J, Holzinger D, Pollard R (2012) Mental health of deaf people. *The Lancet* Vol 379, Issue 9820, 17-23.

Glickman, N. (2007) Do You Hear Voices? Problems in Assessment of Mental Status in Deaf Persons With Severe Language Deprivation. *Journal of Deaf Studies and Deaf Education*. 12:2.

Hall, W. C., Levin, L. L., and Anderson, M. L. (2017) Language deprivation syndrome: a possible neurodevelopmental disorder with sociocultural origins.

National Institute for Health and Care Excellence (2016) Mental health problems in people with learning disabilities: Prevention, assessment and management. Available from: <http://www.nice.org.uk/guidance/ng14>.

Rhys-Jones S & Baker K (2021) Deaf and hard of hearing people with intellectual disabilities. In Austen S & Holmes B (eds.) *An Introductory Guide for Professionals Working with Deaf and Hard of Hearing Clients in Clinical, Legal, Educational and Social Care Settings*. Independently published: Austen S. and Holmes, B.

Richardson WS, Wilson MC, Nishikawa J, Hayward RS. (1995) The well-built clinical question: A key to evidence-based decisions. *ACP J Club*. Nov-Dec; 123: A12-3.

Timehin C & Timehin E (2004) Prevalence of hearing impairment in a community population of adults with learning disability: Access to audiology and impact on behaviour. *British Journal of Learning Disabilities*. 32: 128-132.

Trenoweth S & Moone N (eds). (2017). *Psychosocial assessment in mental health*. SAGE Publications.