

MENTAL HEALTH OF DEAF PEOPLE IN BRAZIL AND SPAIN: SYSTEMATIC REVIEW PROTOCOL

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Mental Health of Deaf People in Brazil and Spain: Systematic Review Protocol

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ABSTRACT

Hearing loss affects over 5% of the global population, and projections suggest that more than 900 million people will experience disabling hearing loss by 2050. In Brazil, approximately 2.2 million people have severe hearing impairment, with a significant portion identifying as culturally Deaf. The Deaf community faces unique linguistic and cultural challenges that significantly impact their access to healthcare, particularly mental health services. Studies show that Deaf individuals are more vulnerable to mental health issues such as anxiety, depression, and substance abuse, often due to systemic barriers, communication difficulties, and social isolation. Despite this, limited research exists on the mental health conditions of Deaf people in Latin and European contexts, especially in Brazil and Spain.

METHODS

The research will be carried out by two independent evaluators, adhering to the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). A comprehensive search will be performed across major databases, including LILACS, SciELO, ScienceDirect, Scopus (Elsevier), PubMed, and Web of Science, to identify articles published up to the year 2025. No restrictions will be applied regarding language or geographic location. The evaluation of methodological rigor will be conducted using tools developed by the Joanna Briggs Institute (JBI).

DISCUSSION

This systematic review aims to obtain scientific evidence on the mental health status, challenges, and associated factors affecting Deaf individuals in Brazil and Spain from a systematic review.

SYSTEMATIC REVIEW REGISTRATION

PROSPERO, CRD420251001388

BACKGROUND

According to the World Health Organization (WHO), in 2020, more than 5% of the global population—approximately 466 million people—were living with hearing loss, including 432 million adults and 34 million children. The WHO estimates that within thirty years, over 900 million individuals—about one in ten—will have disabling hearing loss[1]. In Brazil, the Brazilian Institute of Geography and Statistics (IBGE) reported in 2010 that around 2.2 million people had severe hearing impairments, with 344,200 identified as deaf [2].

Chaveiro notes that the term "deaf" often carries a pejorative connotation when compared to "hearing impaired." However, within the Deaf community, the term "deaf" encompasses political, linguistic, and cultural dimensions of deafness. This understanding reflects not only a conceptual and lexical shift, but also changes in societal attitudes toward this population[3].

In recent years, especially after the legal recognition of sign languages—enshrined in Brazilian Law 10.436/2002—deafness has increasingly been viewed not as a disability, but as a difference³. This perspective emphasizes the visual nature of Deaf culture, where communication occurs primarily through vision rather than hearing, shaping a unique way of experiencing the world [4]

Despite this, the unique linguistic and communicational characteristics of the Deaf population are often overlooked, even by healthcare professionals[5]. Communication barriers contribute to poorer quality of life among deaf individuals, who are more vulnerable to mental health issues such as anxiety and depression compared to hearing individuals, communication challenges can lead to social withdrawal, isolation, and ultimately, a decline in well-being[6].

A UK Department of Health report titled "*A Sign of the Times*" highlights the lack of accessible mental healthcare for deaf people, which discourages them from seeking help. In the United States, studies estimate that among 28 million people using alcohol and other drugs, about 200,000 deaf individuals are alcohol-dependent, with thousands using heroin, cocaine, crack, or marijuana [7,8]. However, no similar data has been found for the Brazilian Deaf population.

A nationwide school-based health survey conducted in Brazil found that 7.3% of students had used illicit drugs, 21.8% had experienced intoxication, and 19.6% had tried tobacco—legal substances being more prevalent [9]. Numerous studies[10,11,12,13,14] point to a variety of risk factors for substance abuse, including social, cultural, psychological, and biological aspects, such as low academic achievement, poor family relationships, early initiation, and genetic susceptibility.

Mental health concerns among children and adolescents have increased in recent decades, with emotional and behavioral problems affecting 10–20% of this group [15]. These problems often persist into adulthood, resulting in long-term impairment. Changes in the availability and use of psychoactive substances also reflect evolving vulnerabilities across different social groups [16].

Deaf individuals are particularly susceptible to these vulnerabilities due to cultural and linguistic factors. Among Deaf adolescents, alcohol and drug abuse may be as prevalent as among hearing peers. [17] points out that Deaf youth are rarely included in meaningful drug prevention programs, despite facing several well-known risk factors—such as academic failure, low self-esteem, family neglect, and unemployment expectations.

Alcohol and drug use are linked to serious health consequences and represent a major public health issue. Urgent action is needed from families, schools, and society to promote health and prevent substance abuse [18]. Early screening is essential for improving care for individuals and families affected

by substance use and for identifying common mental disorders (CMDs), which are strongly associated with substance use[19].

Amaral describes mental disorders as impairments in mental functioning that affect personal, social, academic, and professional life. Common mental disorders (CMDs) are marked by symptoms such as depression, anxiety, irritability, fatigue, insomnia, and concentration problems, often occurring alongside substance use [20].

To date, there is a lack of Spanish-language studies assessing Deaf mental health. According to Toledo et al. (in press) [21], ensuring equitable healthcare access for the Deaf community requires a comprehensive approach that goes beyond social media campaigns. It is necessary to implement inclusive policies, raise awareness, train healthcare professionals, provide interpreters, and foster health literacy tailored to the needs of this population. Only through effective action and professional training can the barriers and disparities faced by the Deaf community in healthcare contexts be overcome.

OBJECTIVES

The objectives of this systematic review are:

1. Analyze the prevalence and types of mental disorders described in deaf people in these countries.
2. Identify the main risk factors associated with the mental health of the deaf population.
3. Map the barriers to access to mental health services faced by deaf people in Brazil and Spain.

This is a systematic review of studies examining the mental health of the Brazilian and Spanish deaf population. The review was registered in the International Prospective Register of Systematic Reviews (PROSPERO) database under registration number CRD420251001388 [22]. This protocol was structured according to the guidelines of the Preferred Report Items for Systematic Review and Meta-Analysis Protocols (PRISMA- P) [23] (see Additional file 1).

The guiding question of this study was: What is the current evidence regarding the mental health conditions, risk factors, and access to mental health services among Deaf people in Brazil and Spain?

ELIGIBILITY CRITERIA

The studies will be selected according to the criteria described below:

Participants

Studies with deaf people of both sexes, with or without pathologies.

STUDY DESIGNS

Studies observational, case-control, cross-sectional, clinical trials and cohort studies that used generic or specific tools to assess the mental health status, risk factors and health care among Deaf individuals in Brazil and Spain should be included. Systematic reviews may be used for reference. Qualitative studies will be excluded.

INTERVENTIONS OR EXPOSURE

Factors related to mental health: prevalence of disorders, risk factors and access to services. Secondary results will not be considered in this review.

SEARCH METHODS

The terms that will be used in the search were consulted in the Health Sciences Descriptors (DeCS) [24] and Medical Subject Headings (MeSH) [25], "Deaf Persons"; "Hearing Loss"; "Deaf Community" "hearing disorders"; "deafness"; "deaf-blind disorders"; "hearing loss-functional"; "hearing loss-sensorineural"; "cochlear implants"; "sign language", and "interpreters" in combination with specific terms for "Mental Health", "health services", "Substance-Related Disorders" and "Brazil" OR "Spain").

Searches will be conducted in the following databases: Latin American and Caribbean Health Sciences Literature (LILACS) [26], Scientific Electronic Library Online (SciELO) [27], ScienceDirect [28], Scopus Elsevier[29], United States National Library of Medicine (PubMed) [30], Web of Science [31]. The search for the articles will take place in the year 2025 and no date filters and database languages will be used. The reference lists of the included articles will be analyzed to ensure studies that have not been found by searching the databases. For database searches, the following keywords or search terms will be used:

The data found in the search process will be organized in a Microsoft Excel spreadsheet.

SELECTION OF STUDIES

Two independent reviewers will conduct the search following three phases. After each phase, the authors will check the included and excluded studies and in case of disagreement the authors will analyze and decide on the studies' eligibility for review.

Study Selection:

The study selection process will be carried out in three stages:

Stage 1: Screening by Title

The titles of the articles identified in the searches will be evaluated according to the following criteria:

Does the study assess the mental health of the deaf population? (Yes, No, Unclear)

Does the study address mental health services? (Yes, No, Unclear)

Stage 2: Screening by Abstract

The abstracts of the studies selected in Stage 1 will be read based on the following criteria:

Does the study involve sign language interpreters? (Yes, No, Unclear)

Does the study address musculoskeletal disorders? (Yes, No, Unclear)

Is the study observational or cohort? (Yes, No, Unclear)

Does the study use instruments to assess the mental health of the population studied? (Yes, No, Unclear)

Stage 3: Full Text Reading

After reading the abstract, eligible studies will be read in full. An extraction table will be created containing the following information: Authors' names; Country of origin; Title of study; Year of publication; Objective of study; Type of mental health assessment instrument; Sample size.

MAIN RESULTS

Assessment of study risk bias

Immediately after filling in the information related to Stage 3, the authors will present the reasons for exclusion from the studies and thus register in text for later consultation. None of the authors of this review will be blind to the titles of the journals or authors or institutions of study. A study flowchart will be made containing measures, such as identification, screening, eligibility and inclusion of items with quantities, and an explanation of the reason for exclusion. Additional information from the authors of the included studies will be requested to resolve questions about study eligibility.

DATA EXTRACTION AND MANAGEMENT

Using a detailed step-by-step, reviewers will be able to extract studies from the databases independently following the same “path” and organize them in Excel software spreadsheets. The extracted data will include: authors, year, country, type of study, population, mental health assessment instruments, prevalence, risk factors, access barriers, and main results. In case of possible differences

found in the political and assessment tools for mental disorders, they will be analyzed by grouping equal or similar parts of the instruments. The reviewers will resolve any differences. In case of lack of information, the reviewers will contact the authors of the studies that were included in this review via email.

QUALITY ASSESSMENT

The evaluation of the methodological quality of the articles will be carried out with instruments from the Joanna Briggs Institute (JBI) [32], according to the design of the selected study. The classification of the studies will be identified as: “low risk of bias” when more than 80% of the established criteria are reached; “Medium risk of bias” when the criteria fulfilled are between 50% to 80% and “high risk of bias” when less than 50% of the criteria are reached according to the instrument used.

EVIDENCE SYNTHESIS

A systematic narrative synthesis will be provided with information presented in the selected studies using tables to summarize and explain the characteristics and results of the included studies: authors, year, country, type of study, population, mental health assessment instruments, prevalence, risk factors, access barriers, main results.

DISSEMINATION

The results of this review will be submitted in a journal of the same theme, and from the peer review the results will be reported according to the items in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [33]. A flow chart will be used to show the selection of articles with the reasons for exclusion. The characteristics of the study and the results will be presented in summary tables. The current protocol follows the rules of PRISMA-P [23].

The results will be published in international public health or mental health journals, presented at academic events and disseminated to the scientific community and interested parties.

DISCUSSION

We hope that this study will contribute to the discussion and creation of public policies for the Brazilian and Spanish deaf population. Discuss the importance of welcoming and understanding deaf culture to provide effective treatment for the various mental health demands. The research will be part of a doctora’s thesis, articles, posters and discussions that may instigate further research on this theme. This systematic review may have limitations, for example, the exclusion of works not published in scientific journals or presented at scientific events.

ABBREVIATIONS

CMDs: Common mental disorders
DeCs: Health Sciences Descriptors

JBI: Joanna Briggs Institute
LILACS: Latin American and Caribbean Literature in Health
Sciences MeSH: Medical Subject Headings
PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PRISMA-P: Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols
PROSPERO: International Prospective Register of Systematic Reviews
PubMed: United States National Library of Medicine
SciELO: Scientific Electronic Library Online
SCOPUS: ELSEVIER database
WHO: World Organization of Health

DECLARATIONS

This study will be funded by the authors.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Not applicable, as this is a literature review.

CONSENT FOR PUBLICATION

Not applicable.

AVAILABILITY OF DATA AND MATERIALS

Data sharing does not apply to this protocol, as no data sets were analyzed yet.

COMPETING INTERESTS

The authors declare that they have no conflicting interests. This study will be financed by the authors themselves. Non-financial sources include the provision of library and database by Universidade Federal de Goiás in Goiânia, Goiás, Brazil.

AUTHOR'S CONTRIBUTIONS

MVAG and MGP developed the protocol, the search strategy, the manuscript and the record of the systematic review. NC, SBRD and DRM contributed to the design of the research and protocol questions, critically reviewed and provided comments on the manuscript drafts and agreed with the final version sent. DRM critically reviewed and provided comments on the draft manuscript and agreed with the final version submitted. All authors read, provided feedback and approved the final manuscript.

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