

How can we improve the oral health of people with intellectual disabilities in low-resource settings?

The question and the problem

People with Intellectual Disabilities have a worse oral health status than the general population, with caries and periodontal disease being the most prevalent disorders. Moreover, the poor oral health status of people with Intellectual Disabilities tends to be more severe in Low- and Middle-income countries (LMICs) since, in this setting, the situation of systemic inequity experienced by people with disabilities tends to be deeper. For this reason, a comprehensive understanding of the oral health of people with Intellectual Disabilities is a crucial factor in informing the development of strategies and interventions that address the specific dental care needs of this group, thus promoting their quality of life and overall health. The brief explores the critical challenges of providing oral health care for people with intellectual disabilities and evidence-based recommendations for overcoming these challenges.

Recommendations

- Recommendation 1: Improve the training of health professionals about the needs of people with Intellectual Disabilities regarding their oral care specificities
- Recommendation 2: Involvement of people with Intellectual Disabilities and caregivers in the oral care delivery process
- Recommendation 3: Promote, where possible, the independence of people with Intellectual Disabilities in performing their oral hygiene
- Recommendation 4: Development of tailor-made dental care accommodations that meet the needs of this population

"Indeed, whilst people with intellectual disabilities experience many health inequalities compared with the general population, inequalities in oral health may be the inequality most likely to reduce with improvements/personalisation in care and support."

Challenges

Challenge #1: People with Intellectual Disabilities have unmet oral health needs, resulting in poorer oral health status than the general population.

- People with Intellectual Disabilities have a higher prevalence and greater severity of periodontal diseases compared to the general population. Further, the levels of untreated dental decay are consistently higher with several studies showing more decayed and missing teeth in this group.
- Dental pain often presents behaviorally in this population and runs the risk of being undetected or undiagnosed till a later more advanced stage of oral disease. As a result of limited detection efforts, the population also has poor access to preventative dentistry.

Challenge #2: Oral health professionals do not know how to address the specific dental care needs of people with Intellectual Disabilities.

- Reluctance and lack of confidence among dentists who feel their training and experience are insufficient to treat people with Intellectual Disabilities.
- Lack of information in dental education about the oral health specificities of people with Intellectual Disabilities e.g., food selectivity and sensory processing disorder
- Difficulties dealing with the behavioral challenges and dental anxiety of people with Intellectual Disabilities insofar as behavioral conditioning strategies most used by dentists are less effective for this population

Challenge #3: Existing promotional tactics for oral hygiene training and education are not practical for people with Intellectual Disabilities.

- People with moderate to severe Intellectual Disabilities often rely on caregivers to carry out their daily activities, including oral hygiene. In this sense, dentists and other health professionals should consider in their education plans that oral hygiene vies with other essential tasks performed by caregivers, such as feeding or grooming, which might be overwhelming.
- Moreover, there is evidence that empowering people with Intellectual Disabilities in performing their oral hygiene is not prioritized in most dental practices in LMICs.
- Commonly used oral hygiene training and education strategies do not encompass specificities of populations with Intellectual Disabilities, e.g., oral aversion (ex. limited tolerance of toothbrushes and toothpaste), inconsistency and variability in their behaviors, and tolerance for daily activities.

Challenge #4: The main barriers to accessing oral health services experienced by people with Intellectual Disabilities in general, are related to Availability, Accommodation, Accessibility and Acceptability.

- **Availability** – The lack of preventive services creates a vicious cycle that further reduces access to dental care. This is because without preventive oral care people with Intellectual Disabilities arrive at services with more serious problems requiring more expensive interventions, such as sedation or general anesthesia.
- **Affordability** - The high cost of dental treatment in private offices and the long waiting period to access public dental services in the countries where these services are offered constitute significant barriers for people with Intellectual Disabilities to access oral health care. In addition to the financial cost, additional barriers include resource constraints from family to the governmental levels, administrative limitations regarding the services organizations, and finally - problems in the referral system.
- **Accommodation** - this determinant refers to the relationship between the organization of services and users' needs. There is little recognition that people with Intellectual Disabilities require specific accommodations, e.g., reducing sensory stimuli, organization of consultations that fit into patients' routines.
- **Acceptability** – There is little consideration of the values and point of view of people with Intellectual Disabilities regarding oral health treatments. Evidence suggests that oral health professionals rarely discuss their treatment plans with patients with Intellectual Disabilities or their caregivers and take little account of their opinion in decisions to be taken, such as the use of sedation or implementation of non-pharmacological approaches such as acclimatization.

How did we find answers?

This study is a review of reviews on oral health care for people with intellectual disabilities. After developing a search strategy specific to oral health conditions and varying types of Intellectual Disabilities across different databases, we retrieved 59 documents. This followed a screening of heading titles and abstracts applying the inclusion criteria. Eight reviews were selected: two systematic reviews, three scoping reviews, one realistic review, and two unspecified literature reviews. Due to the difficulty of finding literature reviews that included data exclusively from LMICs, reviews that included at least one study developed in this setting were considered. Those that did not have a study of LMIC were included only after a critical analysis to understand whether the findings of these reviews could be suitable for low resource settings.

Evidence-informed Recommendations and Actions

Key Recommendations	Actions
Improve the quality of training for health professionals to address the oral health needs of people with Intellectual Disabilities	<ul style="list-style-type: none"> - <i>Incorporate training for undergraduate health students that encompass the specificities about the oral care of people with Intellectual Disabilities to improve the awareness of the needs of this population.</i> - <i>Encourage the implementation of training strategies that provide oral health professionals with practical ways of providing oral care in different settings, e.g., dental offices, home care, and hospital, to meet the environmental, physical, mental, and behavioral needs of people with Intellectual Disabilities.</i> - <i>These programs could be offered online or face-to-face and should be mandatory for all health teams involved in supportive programs for people with Intellectual Disabilities.</i>
Involvement of people with Intellectual Disabilities and caregivers in the oral care delivery process	<ul style="list-style-type: none"> - <i>Improve the oral health literacy of caregivers and people with Intellectual Disabilities by providing easy read /accessible resources design-centred for this population.</i> - <i>Ensure, through public policies, specific and targeted strategies involving the participation of people with Intellectual Disabilities and their representatives in the development, delivery, and evaluation of oral health services and programs.</i> - <i>Create easy ways to receive the input of caregivers and persons with Intellectual Disabilities in providing appropriate oral care using interviews or a "pre-visit" questionnaire, allowing the patient, the family, and oral health professionals to prepare for the visit adequately.</i>
Promote, whenever possible, the independence of people with Intellectual Disabilities in performing oral hygiene	<ul style="list-style-type: none"> - <i>Dissemination of Teeth brushing and flossing training, design-centered for people with Intellectual Disabilities, using educational videos, games, toys, social media, or educational booklets. Delivery and follow-up of this kind of oral hygiene training program can be carried out with the support of primary care teams, educators, and other agents that work with this population at the community level.</i> - <i>Design training strategies for caregivers to facilitate tooth brushing and floss performance, always considering the burden reduction.</i>
Development of tailor-made dental care accommodations that meet the needs of this population	<ul style="list-style-type: none"> - <i>If possible, provide Ergonomic/sensorial accommodations such as allocating separate soundproof rooms and decreasing the dental instruments' extra noises in clinics for people with Intellectual Disabilities.</i> - <i>Implement alternative forms of communication throughout the continuum of care, from booking appointments to treatment decisions.</i> - <i>Other accommodations should be targeted at organizational service levels, e.g., improving the transitional arrangements between services or the timing or length of appointments.</i>

Policy priorities

According to the evidence analyzed in this brief, policymakers need to formulate and implement contextually appropriate policies to increase access to and utilization of oral health for people with Intellectual Disabilities. It is essential that these policies not only include people across a spectrum of Intellectual Disabilities, but also caregivers, dentists, nurses, paediatricians, and other health professionals such as speech therapists and occupational therapists. Therefore, it is strongly recommended that policymakers propose oral healthcare delivery services that increase coordination and access for this group, focusing on preventive and early intervention providers. This recommendation relies on evidence that shows that the policies providing comprehensive prevention and treatment services for people with Intellectual Disabilities are much more likely to be effective than those focused on a separate service alone.

Conclusion

The evidence explored in this review showed high levels of unmet oral health needs in people with Intellectual Disabilities who appear to have a poorer oral health status than the general population. Barriers include the lack of oral health care services, especially preventive ones, the high cost of treatments, or long waiting periods to access public services. Among the reviews analyzed, studies based in developed countries and focusing on children predominated, which denotes the need to develop further research that highlights the oral health situation of people with disabilities in LMIC, especially adults and institutionalized people.

GAPS & RESEARCH NEEDS

There is a lack of research on existing oral health practices, facilitators and barriers for people with Intellectual Disabilities to support the development of appropriate oral health care for this specific group.

The literature on Intellectual Disabilities and access to oral health care focuses predominantly on children. However, adults with Intellectual Disabilities often face extra challenges as they cannot constantly rely on caregivers to aid them in their daily lives.

Furthermore, limited evidence exists on how dental hygienists or multidisciplinary teams can help overcome the barriers faced by people with Intellectual Disabilities in oral health.

Due to a lack of organizational research gaps in legislation, infrastructure and expertise in identifying and supporting people with Intellectual Disabilities in low income settings, there is a lack of epidemiological studies about the subject explored in this review.

Acknowledgments

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