

Barriers to dental treatment for patients on the autism spectrum disorder

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ABSTRACT

Individuals diagnosed with autism spectrum disorder (ASD) encounter significant obstacles when attempting to access dental care services. These obstacles are a result of their unique health requirements, behavioral challenges, and communication impairments. The primary challenges encompass a reliance on caregivers, challenges with adhering to proper oral hygiene practices, selective eating habits that contribute to dental caries, and an impaired capacity to communicate pain and health requirements. Furthermore, dental clinics frequently lack the capacity to accommodate individuals with ASD, exacerbating their stress during visits. A further salient issue pertains to the dearth of adequate staff training to address the needs of patients necessitating specialized care. The objective of this paper is to analyze these barriers and propose solutions that can increase the accessibility and quality of dental care for individuals with ASD, thereby improving their comfort and oral health.

KEY WORDS: dentistry, dental care, autistic disorder

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INTRODUCTION

Autism Spectrum Disorder (ASD), also referred to as autism, is a prevalent disorder of neurodevelopment with a strong genetic component and a wide range of symptoms. It is characterized by core cognitive features and often co-occurs with other conditions. The main domains of ASD symptoms can be broadly divided into two categories: social communication impairments and restricted and repetitive patterns of behavior and interests [1, 2]. The diagnosis of ASD is categorized into three levels, which are distinguished by the complexity of the individual's language, their social and support requirements, and the presence of repetitive behaviors [3]. Poor oral hygiene and gingivitis are common symptoms in children with ASD, which can lead to an increased risk of tooth decay and periodontal disease [4]. ASD is a lifelong disorder that affects not only the individuals themselves, but also their families and caregivers. People with ASD are often diagnosed with one or more comorbid conditions, such as anxiety, depression, gastrointestinal disorders, epilepsy, attention deficit disorders, and intellectual disabilities [5]. Previous

studies have shown that populations of people living with one or more disabilities have more missing teeth and a higher incidence of dental disease than their able-bodied counterparts [6]. These children require special health care and are considered a high-risk group for dental disease [7]. Furthermore, children with ASD are more likely to have unmet dental needs due to their intellectual disability, reduced learning abilities, communication difficulties, poor oral hygiene, poor motor coordination, and challenging behavior [8]. In addition, they may have difficulty accessing oral health care services and finding a dentist, as these children pose a significant difficulty and challenge for the dental care team [9]. Both developmental and behavioral disorders tend to complicate oral health care delivery by creating obstacles for dentists and limiting behavioral treatment strategies [10–13].

AIM

The objective of this paper is to analyze these barriers and propose solutions that can increase the accessibil-

ity and quality of dental care for individuals with ASD, thereby improving their comfort and oral health.

MATERIALS AND METHODS

A thorough search process was undertaken, encompassing the following databases: PubMed, Scopus, Embase, and Google Scholar. The search strategy incorporated the use of relevant keywords and logical operators to ensure the identification of relevant literature. The database search was supplemented by a manual search. The search strategy employed a combination of relevant keywords, including "Asperger," "Autism Spectrum disorder," "developmental disorder," "oral health," "oral hygiene," "dental health," "oral health care," and "oral care." These keywords were utilized both individually and in various combinations. The inclusion criteria for the study comprised peer-reviewed, published papers written in English, with full texts available, and encompassing any aspect of the subject of access and barriers to oral health care for individuals with autism. The study incorporated a variety of research designs, including case-controlled studies, cross-sectional studies, clinical studies, qualitative descriptive studies, and randomized controlled trials. In the course of this review, case reports, case series, reviews and opinion pieces were excluded from consideration.

REVIEW AND DISCUSSION

DEPENDENCE ON PARENTS

People on the autism spectrum often depend on caregivers for their daily oral care. They are often unable to take care of their hygiene on their own, which results in the need for support from parents or caregivers [14]. Unfortunately, oral hygiene is not always a priority for caregivers, who may be overwhelmed by other aspects of care, such as feeding or treating other conditions associated with autism [15]. Furthermore, caregivers may encounter challenges in requesting accommodations at dental offices, as they may perceive their children as already imposing an added strain on oral health care professionals [15, 16].

BEHAVIORAL CHALLENGES

Numerous studies have shown that patients on the autism spectrum have a significantly reduced ability to follow recommended oral hygiene procedures [14–23]. This may be due to a reluctance to allow interference in their oral cavity, or a significantly reduced tolerance to toothbrushes or toothpaste [15].

It is also worth noting that patients on the spectrum very often cannot tolerate electric toothbrushes due to the sounds and vibrations they produce [15, 24]. An additional difficulty may also be the frequent search for suitable dentists by parents, which can overwhelm patients [23]. A significantly higher number of caregivers of children with ASD agreed that their child was reluctant to cooperate and that such behavior was an obstacle to finding care [25].

One of the most important factors contributing to oral health problems in patients on the spectrum is their eating habits. It is common for them to be very selective about the foods they eat, with such patients more likely to reach for products with a high sugar content. Such a cariogenic diet leads to cumulative changes in the oral cavity [26]. In addition, patients with ASD may show variable responses to behavioral conditioning, which makes it difficult to conduct effective interventions [15]. The results of the study also indicate that children with ASD are more often rated lower on the Frankel scale, which reflects greater behavioral difficulties during dental visits [27].

LIMITED COMMUNICATION AND SOCIAL SKILLS

One of the key problems in dental care for people with ASD is their limited ability to communicate their health needs. Patients are often unable to express pain, fears, or other oral health issues to both caregivers and medical staff [23, 28]. Nonverbal communication is becoming a key tool in working with people with ASD, but it requires specialized training on the part of medical staff [20, 29]. Individuals with autism spectrum disorder exhibit a diminished capacity to comprehend their own oral health requirements [15]. There is also a lack of cooperation in routine home care and oral examinations [22].

INADEQUATE MEDICAL FACILITIES

Individuals with ASD frequently experience challenges in dental clinics due to the overwhelming sensory stimulation present in such environments, which can trigger stress and anxiety [16]. Waiting rooms full of strangers and long waiting times can lead to increased agitation and discomfort for patients with ASD and their caregivers. Therefore, it is necessary to introduce changes in the organization of medical facilities to provide patients with ASD with calm and less stressful conditions for treatment [15, 16]. It has been shown that specially prepared dental offices significantly reduce anxiety levels in patients with ASD [30].

HUMAN RESOURCES ISSUES

Another significant barrier in caring for people with ASD is the lack of adequate educational preparation of medical staff to work with this group of patients [16]. Many families encounter refusals to accept their child for dental treatment, which is due to the lack of staff skills in dealing with the challenges associated with ASD [22]. Kind et al. noted that only 10% of general dentists provide dental treatment for people with special needs, including ASD, 21% of parents were dissatisfied with the dental care they received, and 88% of parents could accurately predict their child's cooperation in dental treatment [31]. Similarly, Duker et al. conducted a study that highlighted the difficulty of "finding the right dentist," as well as issues such as discomfort with all the sensory stimuli associated with the traditional dental environment, the need for restraint, and the negative impact this had on their autistic children [32]. Oral health professionals must be prepared to provide highly individualized care and to involve caregivers and patients in the treatment planning process, which can significantly influence positive outcomes [15, 19].

NEGATIVE EXPERIENCES

Dave et al. surveyed 64 people with autism aged between five and 35 and found that 18% of parents and caregivers were unaware of the importance of oral hygiene and its impact on overall health [33]. In a study of Dutch children with autism, Kind et al. also noted that children of parents who themselves attend dental treatment irregularly also attend treatment irregularly [31]. Further research is needed to develop education for

students and general dentists to ensure positive dental experiences [34, 35]. Education must aim to develop the dentist's confidence and competence in providing preventive dental care to patients with autism. This will bring about a positive change in the dental treatment experience and address their negative experiences as patients, parents, and caregivers, and reduce the burden of unmet dental care [3].

CONCLUSIONS

Dental care for patients with autism spectrum disorder (ASD) necessitates an understanding of the unique barriers they encounter to ensure the provision of adequate treatment. The reliance on caregivers, behavioral challenges such as aversion to toothbrushes or selective eating, and other factors contribute to an increased risk of tooth decay and gum disease in individuals with ASD. The presence of limited communication, both verbal and nonverbal, introduces an additional challenge to the diagnostic and treatment processes. It is imperative to implement adjustments to medical facilities to mitigate patient stress levels. Such adjustments include the reduction of visual and auditory stimuli, as well as the optimization of appointment scheduling to minimize wait times. Furthermore, it is imperative to equip medical personnel with the necessary competencies to effectively manage patients who necessitate specialized care. The integration of caregivers and patients in the treatment planning process has been demonstrated to enhance cooperation and the efficacy of therapy. Consequently, further research is necessary to effectively modify standard dental procedures for patients with ASD, with the aim of improving their experience and long-term oral health.

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CONFLICT OF INTEREST

The Authors declare no conflict of interest

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