

Original Research Article

Oral health status of patients with special needs from a rehabilitation association in Curitiba (PR, Brazil)

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Abstract

Introduction: Patients with special needs commonly show significant systemic and oral diseases. **Objective:** We carried out a survey on the oral health status from individuals with special needs of Associação Paranaense de Reabilitação (APR), in Curitiba, PR, Brazil. **Material and methods:** Clinical oral examination was performed and a specific questionnaire was applied to 87 individuals, aged from 5 to 14 years-old. **Results:** The mean age average was 9 years-old, and 57.5% were males. The mean DMFT was 1.4, and 54% of the sample showed DMFT = zero. The oral health status from the studied sample was similar to that found in the same age group of the general population. **Conclusion:** We indicate that strategies for controlling oral health diseases tailored for this group must be stimulated, once the vulnerability is present.

Introduction

The patient with special needs is considered as every individual that has either simple or complex physical, organic, intellectual, social, emotional changes; of acute or chronic nature; and requires special education and additional instructions, temporarily or permanently [27].

The fact that an individual has special needs somehow implies limiting conditions, whose origin can be congenital or acquired over life [5]. In 2010, 23.9% of the population claimed to have some type of disability, with higher concentration in urban areas [19]. Evidences indicate that the highest concentration of people with special needs (PSNs) occurs in groups with unfavorable conditions, such those with low income [13, 39].

PSNs commonly present systemic and oral characteristics. The most prevalent oral disease is dental caries and periodontal disease [10, 20, 22, 24, 34, 37, 40].

There are indications that the institutionalized PSNs may be at increased risk of caries development compared to non-institutionalized [14, 18]. More compromising disability cases are found more often in specialized institutions, which coincide with the fact that these individuals have higher rates of diseases [22, 34]. These findings are caused by common set of factors such as poor oral hygiene [10], use of psychoactive drugs [10] and dietary patterns [7, 30], which increase the risk of developing diseases.

In different locations worldwide, studies highlight the need for improvements in organizational strategies to strengthen preventive measures, together with the rehabilitative interventions for this population, supported by changes in the health policies aimed at expanding the service to these patients [1, 13, 24, 34, 35, 37].

Early dental care of PSNs and multidisciplinary care have an important role, but challenges the dentist according to the skills [7-9, 23-25, 32].

In Brazilian population, the difficulty lies in having few specialized centers to provide assistance to these patients and the limited number of qualified professionals for the treatment, either in public or private practice [16, 31].

One should also consider the complexity of the answers that can be given by families concerning the problems presented by these children [11]. The family motivation and disinterest may arise in relation to oral health of PSNs [36], as well as the lack of oral health knowledge and attitudes of professionals for the education of patients with special needs [28].

The educational process in dentistry, attempting to change the behavior, is essential for the maintenance, acquisition, and promotion of self-care in oral health [36, 38], is now not relevant, and hence the restorative treatment is necessary. In this context and as a result, the quality of life associated with oral health is impacted [17], theme addressed in the context of PSNs [32].

This study aimed to evaluate the oral health status of a group of PSNs from the Paranaense Association of Rehabilitation (APR), at the city of Curitiba, Brazil.

Material and methods

This cross-sectional study with non-probabilistic sample was composed of students from an institution (Curitiba, Brazil). Inclusion criteria comprised the age range of 5 to 14 years-old and prior signing of the Free and Clarified Consent Form by the parent/legal guardian. Eight-seven of 205 individuals participated in the study. This study was submitted and approved by the Ethical Committee in Research of Positivo University under protocol no. #155/2009.

The following variables were evaluated: age, gender, periodontal disease, soft tissue alteration, occlusion, fluorosis, and dental caries.

The intraoral clinical examination followed the standards recommended by the World Health Organization [26]. Periodontal disease was measured through the identification of gingival changes and recorded as absent or present. The same classifications were possible for the change of soft tissue and the presence of visible plaque. Occlusion was classified as normal, mild, moderate, or severe malocclusion. For fluorosis, the possibilities were: normal, questionable, very mild, mild, moderate or severe.

The examinations were performed by calibrated examiners, under artificial light, with wooden spatula, with the patient sat and the examiner stood up.

The collected data were recorded, tabulated, and analyzed through Statistica 8.0 software.

Results

The result of the Kappa test to evaluate the interexaminer agreement was 0.86.

The sample mean age was 9 years (SD = 2.5).

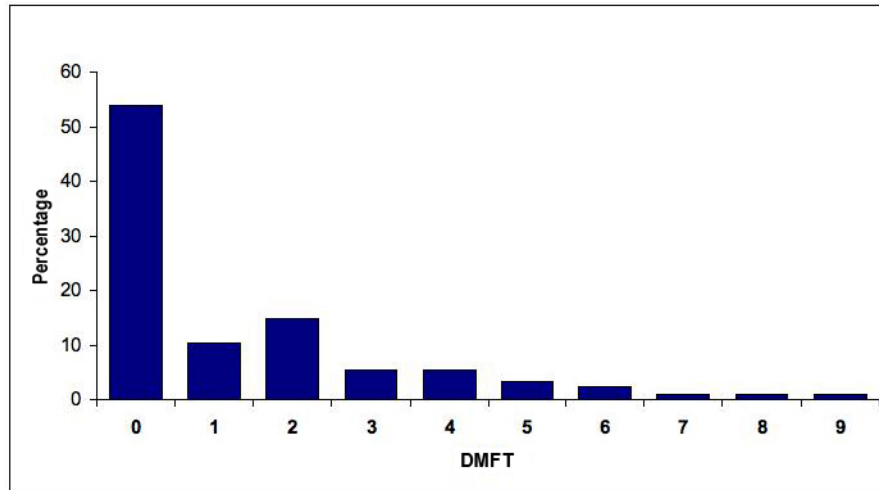
Male individuals accounted for 57.5% of the sample.

With regard to the oral status evaluated, the gingival changes are shown in 6.9% of examined PSN, with the presence of visible plaque in 57.5%, while the soft tissue changes were present in 4.6% of cases. Occlusal problems were found in over 50% of the examined according to standard

classifications (47.1%) in mild (36.8%) and moderate or severe malocclusion (16.1%).

Fluorosis represented 3.3% of subjects, with equitable distribution rate of 1.1% between mild, moderate and severe scores.

The average DMFT value was 1.4 (SD = 2), and 54% of the examined had DMFT = zero. The distribution of DMFT values can be observed in graph 1.



Graph 1 - DMFT distribution in patients with special needs from APR at Curitiba, Brazil, in 2009 (n = 87)

Discussion

The literature suggests that the most prevalent oral disease in patients with special needs is caries and periodontal disease [10, 20, 22, 24, 34, 37, 40]. However, the results of this study did not indicate a significant proportion of these diseases, because the estimates of oral conditions were close to those of the same age groups of the population considered as "normal" [3, 4].

With regard to caries, the DMFT average (1.4) was lower than values found in the literature ranging from 2.27 [15], 2.41 [20], 2.48 [24], 3 [14] to 5.4 [34]. In a recent study with Indian PSNs caries was found in 79.2% of respondents [37].

This study did not set aimed to compare PSNs with other groups of individuals, but considering DMFT variable, the mean value (1.4) was close to the average for 12-year-old children in the city Curitiba, in 2010, whose value was 1.53 [4]. However, we highlight that possible differences in the methodology of the studies can lead to variation in the results.

The high consumption of drugs among PSNs is considered the source for increased risk of caries development [10], although there are contradictions

[15]. The institutionalization was also considered a risk factor [14, 18, 22, 34]. Recognition of the role of poor oral hygiene in triggering problems [10], especially in those individuals with higher psychomotor difficulties, is a critical issue.

The low frequency of gingival changes found in this study corroborates previous findings [6], but contradicts other recent findings, in which healthy periodontal condition was not found in any participant [37]. The Brazilian epidemiological survey conducted in 2003 pointed to a rate slightly higher than 6% of gingival changes in 5-year-old children [3].

The soft tissue changes are also highlighted with many types [33]. In this present study, a low prevalence of this disease was seen.

Concerning to malocclusion, these are often detected in patients with special needs, especially in Down syndrome as a result of muscle hypotonia and macroglossia [31, 37]. These findings of this study corroborate the literature and the data of the 5 to 12-year-old Brazilian population [3, 4].

Several studies have been conducted to achieve knowledge on oral health status of PSNs seeking the implementation of programs and educational/

preventive actions [1, 13, 24, 25, 34, 35]. Also, other points have to be overcome, such as lack of training in handling these patients [2, 16, 23, 31], the lack of multidisciplinary care [7-9, 23-25, 32, 35], and the need to instruct the parents/guardians to perform effective oral hygiene [9, 21, 32, 38].

In Brazil the specialty of Dentistry for Patients with Special Needs was regulated by Federal Council of Dentistry in December 2001 [12]. This particular training is of utmost importance, since the dentists attending children with special needs report experiencing difficulties in describing the real demands of these patients [16].

It must be considered that the high prevalence of dental caries admittedly has impacts on the quality of life of all people [17], likely PSNs [32].

Further studies are necessary to clarify the association of other variables, e.g. socioeconomic and oral health-related quality of life, with the oral health status of PSNs.

Conclusion

Based on the results obtained in this study, it is concluded that PSNs, in general, showed good oral health status, with data similar to those found in the general population. Efforts should be encouraged to seek the proper oral health of these individuals because of their vulnerability.

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