

Why many children with autism have oral health problems

January 20 2020, by Magandhree Naidoo



Credit: AI-generated image ([disclaimer](#))

The [World Health Organisation](#) estimates that one in 160 children around the world has an autism spectrum disorder. [Autism](#) is a condition related to the development of the brain and is usually noticeable by the time a child is three years old. Statistics aren't available for any African country, so researchers like me in South Africa are using international

prevalence rates.

Children with this neurodevelopmental disorder may have difficulty learning language and interacting with people.

Having autism does not mean that a child's [teeth](#) and other facial features will be different. But these [children](#) are likely to develop [oral health problems](#) for a number of reasons such as [unusual oral habits](#), medications and poor food choices. Difficult [behaviors](#) can also contribute to oral problems. These behaviors include head banging, picking at the lips, removing their tooth buds and chewing on harmful objects like stones. These children also prefer soft foods which they tend to pouch at the back of their mouths for long periods of time.

We conducted the [first study in South Africa](#) that looks into the oral health of children with autism. We examined children attending special needs schools in KwaZulu-Natal province.

Most of the children had cavities in their permanent teeth. The percentage of children with cavities was higher than the national average. This means that there is a great burden of dental caries or [tooth decay](#) for children with autism in South Africa. The decayed teeth recorded in both the permanent and primary teeth in this study were all untreated, meaning the children's dental needs are not being met.

What we found

In 2017, we examined children between the ages of seven and 14. We checked them for decayed, missing and filled teeth, inflammation of the gums and the presence of plaque as well as attrition and soft tissue trauma using the World Oral Health Survey Form for Children. We also asked the children's parents to complete a questionnaire.

We found mild swelling of the gums in 43.6% of the children; evidence of fair oral hygiene practices was observed in 42.3% and mild grinding of the teeth in 47% of the children we examined. Responses from the parent questionnaire indicated that most children prefer carbohydrates, and a combination of carbohydrates and proteins. More than half (52.9%) of the children only brushed their teeth once a day. Lip biting (56.3%) was the most prevalent soft tissue trauma observed.

We found that 85.2% of the children had cavities in their permanent teeth. This rate was higher than figures from National Oral Health surveys which indicated a caries prevalence in the general population of children of [41.7%](#) in 2002; prevalence of [55%](#) and [56.5%](#) was reported in 2014 and 2015 respectively.

The decayed teeth were all untreated. Unmet dental needs in the South African context are not limited to children with disabilities. They may be as a result of factors such as financial costs of dental care and poor medical insurance coverage.

In addition, the medication consumed by children with autism can also affect their gum health. Almost 45% of children and adolescents with autism use medications whose side effects have [dental implications](#). The [side effects](#) include dry mouth, overgrown gums, toothache, changes in salivation, prolonged bleeding and altered taste.

The medications may also cause [motor disturbances](#) that may affect efficient oral care practices. Grinding of the teeth, resulting in wearing down of the tooth structure, has also been [noted](#) often in these children.

Way forward

The need for oral hygiene programs at special needs schools is highly recommended to increase awareness and improve oral care.

Changes to oral care practices by conducting oral health programs to educate parents and caregivers of children with [autism](#) spectrum disorder is also necessary. A structured program for the [autism spectrum disorder](#) population at school and community level would help.

For example, the [Sparkle Brush Programme](#) was successfully introduced in four special needs schools in KwaZulu-Natal and the Western Cape. The program is part of a collaborative community engagement initiative between the University of KwaZulu-Natal and University of the Western Cape.

This program had two phases. Phase 1 was a full training program for the special needs teachers, teaching assistants and nurses. Phase 2 was the demonstration of tooth brushing, hand washing and healthy eating to the children with special needs. A monthly courtesy visit and a six monthly recall visit has been scheduled with these schools.

This program was awarded the International Social Responsibility Award for Special Needs in Brisbane in August 2019. It was presented at the International Social Responsibility conference in Brisbane, where 33 countries participated. South Africa was awarded the best social responsibility program for special needs.

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