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SCHOOL DIETARY HABITS AND THE DENTAL HEALTH STATUS OF PRIMARY SCHOOL LEARNERS IN JOHANNESBURG, SOUTH AFRICA

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ABSTRACT

Childhood caries remain a public health problem largely as a result of dietary and lifestyle behavioural factors. In addition, a partially monitored school health environment can potentially alter children's eating patterns and food choices, as family decision-making can be influenced by caregivers and peers, and the school food environment.

In an attempt to curb malnutrition, the Department of Education runs a National School Nutrition Programme (NSNP), where meals are served to learners who come from disadvantaged backgrounds. Despite this initiative, learners are still exposed to sugar-rich foods contained in their lunchboxes or from school vendors or tuck shops. These unhealthy eating patterns contribute to non-communicable diseases, such as dental caries, obesity, and diabetes, later in life.

Aim: To assess the dietary habits and oral health status of Grade 3 primary school learners aged between 9 and 11 years in a public school that are part of the NSNP and in a non-NSNP schools.

Methodology: This was a cross-sectional study that assessed the school dietary habits, oral health status, and BMI of the learners that were part of the NSNP and those that were non-NSNP. Correlation analysis as well as univariate and multivariate logistic regression was applied to seek an association between oral health status and independent variables such as age, gender, sugar consumption and BMI.

Results: The main findings were that frequent consumption of foods and beverages rich in sugar was associated with dental caries. Learners from the NSNP school were the major contributors to higher mean DMFT/ dmft of 1.91 (2.21); 3 (3.39) respectively compared to those of the learners from the non-NSNP school, which were 0.59 (1.42); 1.4 (2.84) respectively. However, a statistically significant mean difference was only found for dmft with a p-value of 0.018. A significant decrease was observed in the overall Gingival Index (GI) score at both schools with regard to an increase in sugar consumption (p=0.039). About 45.21% of learners from the NSNP

school also presented with a mild GI oral health status compared to 17.64% of learners from the non-NSNP school.

The majority (64.44%) of the learners at both schools were found to be healthy with 35.51% being unhealthy learners. However, the overall mean BMI score was 18.2 (3.59) which falls within the overweight (unhealthy) category. When comparing the association of BMI scores to oral health status at school level, no statistical significance was found.

Conclusion: Based on the findings of this study a conclusion can be made that the learners at both the NSNP school and non-NSNP school consumed a high concentration of sugary foods and drinks, mainly found in their lunchboxes, and frequently purchased food items and beverages. The NSNP provided an environment where underprivileged learners had daily nutritious meals which ensured that schoolchildren do not suffer from malnutrition. However, the school food environment did not promote healthy eating habits. As a result, the caries experienced among the learners was also cause for concern as evidenced by the findings of this study. An increased dmft and GI scores that are associated with increased consumption of sugar rich foods in public primary schools, was apparent in both schools.