

# Risk Assessment of Sever Early Childhood Caries (S-ECC)

Among Sample of Preschool Children in Jeddah

By

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# Risk Assessment of Severe Early Childhood Caries (S-ECC) Among Sample of Preschool Children in Jeddah

## Abstract

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The aim of this study is to evaluate the risk factors associated with severe early childhood caries among sample of preschool children in Jeddah, Saudi Arabia. Factors investigated were; Mutans streptococci and Lactobacilli counts in saliva, saliva buffering capacity, salivary flow rate, plaque index, feeding behavior, dietary habits, exposure to fluoride, oral hygiene habits, socioeconomic status, knowledge and attitude of parents towards dental health.

The design was case control and cross sectional study, sixty children diagnosed with S-ECC and another 30 caries free children were selected. The study groups were selected according to certain criteria; healthy ASAI, diagnosed with S-ECC and aged 36-71 months, Clinical and radiographic examinations were done to measure dmfs and plaque index, Salivary tests to measure salivary flow rate, buffering capacity and bacterial counts. Questionnaire interview was performed to evaluate the following factors; Feeding behavior, dietary habits, exposure to fluoride, oral hygiene practice of the child, socioeconomic status, knowledge about dental health and attitude of the parents toward dental health.

There was a highly significant difference in streptococcus count ( $P=0.02$ ), Lactobacillus count ( $P=0.00$ ), and plaque index ( $P=0.000$ ), between both groups, but there was no significant difference in the saliva buffering capacity and saliva flow rate. There was a significant difference between both groups regarding the child feeding behavior, with increased risk of caries found in child who went to bed with bottle and who was fed at will ( $P=0.000$ ). A highly significant difference was found between both groups regarding the dietary habit, which included the frequency of eating sugar ( $P=0.003$ ), the eating frequency of salty snacks (fishfash, chips) ( $P=0.006$ ,  $P=0.002$ ), frequency of drinking flavored milk ( $P=0.008$ ), and the consumption of soda drinks ( $P=0.001$ ).

There was a highly significant difference between the two groups regarding type of toothpaste used, there was increased risk of caries in children using adult tooth paste ( $P=0.008$ ) as compared to child tooth paste, while the children who start brushing earlier showed reduction of caries risk ( $P=0.013$ ). The study showed increase risk of caries in

families with high number of sibling ( $P=0.035$ ), low mother education level ( $P=0.012$ ), low-level mother occupation ( $P=0.000$ ), and low level father occupation ( $P=0.001$ ).