



Dental Caries Determinants in High School Students of Public Sector in District Sialkot

Umairul Hassan^{*1}, Abdul Waqas², Shoab Pervaiz

^{*1} Corresponding author: MO, BHU Raja Tehsil Kamoke, Gujranwala, 00923334578131,
umairjee6@gmail.com

² MO, BHC Rambri, Tehsil Shakargarh District Narowal, 00923454600098, waqashakoor19@gmail.com

³ HO, Mayo Hospital, Lahore, 00923227429658, blind.alley18@gmail.com,

ABSTRACT

Objective:

To ascertain the decisive factor of dental caries or cavities in the children registered at high school on public scale in district Sialkot.

Study Design:

Cross sectional study

Place and Duration of Study:

This examination was taken place at the Department of Dental Materials, Islam Dental College Sialkot starting from the month of June 2017 till December 2017.

Materials and Methods:

382 high school children of 9 public state, (4) girls and (5) boy high schools situated in the district Sialkot were involved in this case study. Simple random sampling technique was implemented. Questionary was the study tool. The collected data was analyzed surveyed by operating SPSS version 24.0.

Results:

52.9% of the kids had to take sick leaves due to dental pain and nearly 62.83% of them had dental complications in the past. Nearly 87.4% of the children consumed candies and sweets numerous times during the week. About 37.2% had never been for a dental check up. A considerable connection ($p \leq 0.05\%$) was discovered between dental caries and high consumption of candies, , juices, sodas, chocolates etc. and lack of oral hygiene practice.

Conclusion:

Students consuming carbohydrates and sugars in moderate amount, were less liable to dental caries. A regular oral hygiene on daily basis was one of the possible explanation. We can positively determine that moderate sugar consumption with regular brushing, two times per day with fluoridated toothpaste is crucial to minimize the possibility of tooth decay.

Key Words: Dental Caries, Tooth Decay, Prevalence, District Sialkot

INTRODUCTION

Dental cavities is an infectious disease that ruins the mineralized segment of the tooth. It is portrayed as "an irremediable bacterial disease occurring in the tooth, in which dead part of the tooth suffered from the lack of minerals and living segment of the

tooth is undermined, which results in the origination of void space inside tooth called cavitation". An interlink of four elements is essential for the process to transpire: a defenseless tooth surface, manifestation of specific microscopic organisms in dental plaque, exposure span, and carbohydrates rich diet, for the most part sugars. Caries is extracted from a Latin word which signifies, 'rotten'. Dental cavities is prominent amongst the most widely recognized youth ailments, exerting influence on an considerable populace of the world. Tooth decay is prominent as one of the imperative issues among school youngsters. It has been demonstrated that age scope of 11– 14 years is most are highly prone to dental cavities. In the United Kingdom, around sixty to eighty percent patients of dental carrier have been accounted for in children.

In the United kingdom, a national review undergone in 2003, 34% of 12 years of age children and 49% of 15 year old kids had recognizable carious lesion . Dental caries is a procedure that includes a variation of demineralization and remineralization exercises in the dental surface because of discontinuous corrosive attacks. Intake of sugar in all type of sweets, nectar, cakes and soda pop delivers corrosive that diminishes mineralized tooth structure . It is observed that poor oral cleanliness is identified with extended hazard for caries improvement though precise tooth brushing slow down the predominance of dental caries . Other than the principle etiological components, microorganisms like streptococcus mutans and lactobacilli and salivary discharge and buffering limit are likewise hazardous factors for dental decays . It is currently acknowledged that it isn't sum yet recurrence of starch ingestion is essential in the etiology of dental caries . Oral wellbeing is a general medical problem that influences kids and hamper their condition of life. This sickness causes agony, distress and has a high bleakness potential. Moreover, it puts a budgetary weight on general wellbeing administrations. WHO has uncovered that just about 60-90% of the school going youngsters have dental caries encounter all across the world . About 2.43 billion youngsters and right around 620 million offspring of the world are having dental caries in their teeth. Dominant



part of instances of dental caries have been accounted for in Latin America, South Asia and Center East. Consistently, kids misfortune relatively fifty-one million school hours as a result of dental caries which is the second-most regular antagonistic Welfare state. Dental caries entanglements are enormous sinus thrombosis or Ludwig angina which is described by contamination of the delicate tissues around the tooth and can be even life-threatening . In Pakistan, prevalence of dental caries is 50-70% and it is because of the deficient access to oral wellbeing care . In spite of oral wellbeing advancement in the underdeveloped and developed oral ailments are as yet considered a medical problem around the world. Caries avoidance is prominent amongst the most critical techniques in numerous nations. It is prescribed, that for keeping up great oral wellbeing, tooth brushing with fluoridated toothpaste twice day by day is best practice . The dimensions of cell reinforcements change in light of a contamination or irritation or disease. Salivary peroxidase controls oral microscopic organisms which prompt dental caries. It has been demonstrated that add up to protein and aggregate cancer prevention agent dimension of salivation were expanded with caries activity. No epidemiological examinations done as such far to assess the dental caries in secondary school children of area Sialkot so this investigation is led out in the open division school children to discover the determinants of dental caries. Teaching the general population in regards to the consciousness of these determinants may result in decrease of this illness.

MATERIALS AND METHODS

This examination was led at the Department of Dental Materials, Islam Dental College, Sialkot from the month of June 2017 to December 2017. Testing outline was created which included posting of all the public schools in area Sialkot. List was acquired from DDO/EDO Education. Schools were chosen by helpful testing technique. Chosen schools name are Government Boys M.C E/S High School, Government Girls High School HabibPura, Sialkot, Government. Secondary School, AdalatGarah, Sialkot, Government Lady Anderson Young ladies Secondary School, Sialkot, Government Girl High School ,Sialkot City, Sialkot, Government Pilot Higher Secondary School, Sialkot, Government Girls High School Dharowal, Sialkot, Government Boys Secondary School, Gunna, Sialkot, Government Boys High School, Badiana, Sialkot. Educated assent was acquired from members to top off the poll. In this examination, 382 youngsters at open division secondary schools in area Sialkot were

incorporated. Simple Random Sampling system was used. Each of Girls and Boys School school was visited week after week from 9a.m. to 1 p.m. with point of taking outcome of 76 understudies in seven days. It took 5 weeks to get test of 382 understudies. Incorporation criteria included understudies out in the public state schools in region Sialkot, age run 12 – 16 years and having a place with region Sialkot. Prohibition criteria were occupants other than the area of Sialkot, non-public school understudies and non-helpful understudies. Athical endorsements were acquired from the concerned specialist and verbal authorization was obtained from the members. The reaction of members was recorded on survey. The poll was in English and contained inquiries on factors of dental caries. Understudies of review 6 and 7 required direction while review 8 to 10 understudies filled the poll advantageously. The information was entered and broke down utilizing SPSS form 24.0.

DISCUSSION

The examination demonstrates the evaluation of hazard factors for caries, for example, high recurrence of cariogenic nourishment admission, lacking oral cleanliness care, deficient fluoride presentation, poor oral cleanliness, unseemly strategies for tooth brushing and destitution. The way to deal with essential counteractive action ought to be founded on normal hazard factors. The aftereffects of the examination were like a cross sectional study directed by Umer MF, et al in four schools of Sargodha state . The rate of dental caries was discovered higher in youngsters who did not brush their teeth or brushed incidentally. The examination likewise demonstrated that kids never visited the dental practitioner for treatment. The current investigation affirmed the relationship of dental caries and part of sugars. Sugars and different starches give substrate to the activities of oral microscopic organisms, which thusly bring down plaque and salivary ph. The resultant activity is tooth demineralization. Numerous elements notwithstanding sugars influence the caries procedure, including the type of sustenance, the length of presentation, supplement synthesis, succession of eating and oral cleanliness. The current investigation has affirmed the immediate connection between admission of dietary sugars and dental caries amid developing age. Since the presentation of fluoride, the rate of caries worldwide has diminished, regardless of increments in sugars utilization. S Abdullah, et al considered determinants of dental caries to discover any conceivable relationship of caries with oral cleanliness and sustenance propensities.



In this investigation 543 patients with dental caries between 6-9 years were chosen from dental OPD of Children's Hospital, PIMS, Islamabad. They reasoned that substandard oral wellbeing and sucrose rich diet improves the probability of dental caries. Likewise crosswise over sectional examination was completed to compute the caries recurrence and hazard factor in 12-15 years school youngsters in Malir Town, Karachi. The pervasiveness of dental caries watched was 66.67%20. The dental caries expanded as the age extends from 12 to 15 year. The current investigation demonstrates that over the top utilization of sugars as cakes, scones and chocolates triggers high teeth issues. Indeed, even the utilization of organic product squeezes and drain or tea with sugars is harmful for the teeth. Besides, the investigation of the affiliation says a lot with respect to the discoveries of the examination. Comparable outcomes were appeared by a cross-sectional investigation that was led in North West Ethiopia among 280 patients going to Debre Tabor General Hospital dental Clinic. Commonness of dental caries was discovered increased. Financial status, proficiency level, and poor oral cleanliness were related components for dental caries. Another comparative investigation was led by LonimPrasai Dixit and his group at Chepang School, Nepal. The investigation announced 31% school kids matured 8-16-year old

endured oral torment. The brushing propensity was supposedly low with just 24% of the youngsters brushing twice daily.

CONCLUSION

As indicated by this investigation, the determinants of dental caries in secondary school children of area Sialkot were, absence of mindfulness about oral cleanliness measures in guardians, restricted information of tooth brushing strategies, fluoride toothpaste and flossing in view of low financial status. Much of the time, high admission of starches and sugar containing nourishment makes kids inclined to dental caries. Age scope of 12 - 15 year is essential due to profound pits and crevices of perpetual teeth, development hormones in kids causes all the more longing for desserts, change in dietary patterns in school and home and self-determination of nourishment. Absence of successive dental visits or visit just when there is extreme torment because of poor financial status and absence of mindfulness were alternate components. Inaccessibility of fluoridated water in numerous regions of network makes dental tissues more inclined to carious assault. In conclusion, inaccessibility of preventive consideration systems and fluoridation strategies in numerous regions of locale Sialkot expanded the danger of carious assault in school kids out in the open division.

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