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Research Article

### A CROSS SECTIONAL STUDY ON THE INCIDENCE OF DENTAL CARIES IN THE SCHOOL GOING CHILDREN OF MULTAN

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#### Abstract:

**Goals and Objectives:** To investigate the frequency of caries Experience using rotten teeth without rot (PUFA / PUFA) clinical results (index PUFA / PUFA) of decayed, rotten, extracted and filled index of teeth and untreated teeth decay 6, 12 age group in urban and rural schools in a group of 15 years.

**Place and Duration:** The study was performed in the Dental department of Nishter Hospital, Multan for the period of one year from February 2016 to February 2017

**Material and Methods:** This cross-sectional study randomly selected 500 children of 6, 12 and 15 years of age groups and in the rural and urban schools attendance county. An intraoral examination was carried out to assess tooth decay experience using the criteria of the World Health Organization. The ratios of CPMD / haptent and PUFA / PUFA and collected data for data collection were tabulated and used statistically analyzed.

**Findings:** Rural prevalence (CPOF + tactile > 0) in rural areas: 37.37% and urban: 26.28%, and untreated dental decay (mean prevalence of AGP + PUFA > 0 clinical results) 11.9% in urban areas and 10.7% in urban areas. Children have proved "decaying untreated PUFA" for 5 years in rural 53.33% and 50% in urban areas for 6 years; 15 years were 15% and 17.54% in rural and urban children respectively, while children were 41.05 and 16.43% for 12 years respectively.

**Conclusion:** The study has shown that the prevalence of untreated dental decay clinical outcomes is high in rural children in groups of 6 and 12 years. For this reason, the use of the PUFA / PUFA index will complement the classic ejaculation rates, which can address the problem of untreated tooth decay and neglect of results. In addition, PUFA / PUFA providers can be used by health care providers to plan, control, and evaluate the treatment plan.

**Key words:** indexed teeth / decay rate of untreated decay PFFA / PUFA incomplete CRP filled with PUFA ratio, untreated tooth decay

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## INTRODUCTION:

The genetic and environmental factors because of the biological components in which tooth decay continues to be a major global public health problem, although in recent years high-income countries have improved in oral health. Social, behavioral, and psychological are expressed in a highly complex and interactive way. The World Health Organization (WHO) has accepted the rate of missing tooth decay (CRD) for its oral health assessment for national oral health surveys. This classic index gives information about the clinical results of untreated dental decay, such as denture and tooth dentition attendance, which may be more threatening to its own injuries, but it gives information about rotten and restorative and surgical treatment, although it is rotten. . For this reason, in 2007, the World Health Assembly adopted the growing burden of oral diseases worldwide and stressed that it should be expanded to act according to a comprehensive data collection system. An index called the "PUFA" index (ie ulcer due to pulp involvement, root fragments, fistula and abscess) was developed by Monse *et al.* and the original index seeks to increase the sensitivity of the MDRD In 2010 (decayed and filled teeth [work]) and records the results of a rotten lesion. Data collected via this index may be effective in deciding oral care authorities, which is not possible with the DMF index. The aim of this study was to assess the frequency and severity of oral cavity untreated in the 6 groups using the index QDD / tactile and determine the prevalence of caries when the PUFA / PUFA index was compared to 12, and 15 years in urban and rural schools.

## MATERIALS AND METHODS:

This study was conducted on 500 children in a total of 275 rural school children and 225 city school children in Nishter Hospital, Multan and two examining officers and two registrars conducted oral examinations for the collection of DMFT / master data (permanent and primary dentition). PUFA / pufa indices were used. Before continuing the survey, an institutional ethical permit was obtained. Inter-rater reliability was assessed using static kappa. The Kappa value was 0.78, indicating an important agreement among researchers. The examinations used sterile mouth mirrors, CPITN-E probes and

examined under illumination. According to the WHO age selection criteria, school children are divided by age 6, 12 and 15, respectively, in rural and urban schools. Examination and interpretation were done according to WHO criteria for tooth decay. The collected data were tabulated and subjected to statistical analysis. PUFA / Pupa: An epidemiological assessment of teeth called the index of clinical outcomes of Monse *et al.*, Which takes into account the condition of the pulp and periapical tissues and is an untreated dental decay. pulp affinities for primary dentistry (PUFA) and permanent dentistry (PUFA), ulceration, fistula, and abscess. Records are generally given in Table 1.

**Table 1: Description of the clinical situation assigned by individual codes for PUFA according to Monse *et al.***

Code	Name	Description
P/p	Pulpal involvement	Recorded when the opening of the pulp chamber is visible or when the coronal tooth structures have been destroyed by the carious process and only roots or root fragments are left
U/u	Ulceration	Recorded when sharp edges of a tooth with pulpal involvement or root fragments have caused traumatic ulceration of the surrounding soft tissues, e.g., tongue or buccal mucosa
F/f	Fistula	Recorded when a pus releasing sinus tract related to a tooth with pulpal involvement is present
A/a	Abscess	Recorded when a pus containing swelling related to a tooth with pulpal involvement is present

In a situation that identifies the tooth condition, code 1 receives the above symptoms and a tooth with code 0 is not assigned. The PUFA index is calculated similar to DMF and is the sum of the numbers 1 and the teeth. For this reason, for an individual person, a score of 0 to 20 PUFAs for primary dentition and 0 to 32 PUFAs for permanent denture.

### Statistical methods

Data were analyzed with SPSS version 17 (IBM Software Corporation) and calculated for tooth decay frequency and untreated tooth decay results, ie DMFT / haptic and PUFA / PUFA in rural and urban areas in three groups. age separately. The mean prevalence and standard deviation (DMFT + hapt > 0) and untreated bruises (PUFA + PUFA > 0) for tooth decay were also calculated. PUFA ratios were calculated for total urban and rural school children for the three age groups using the formula one by one.

**RESULTS:**

From a total of 500; Children aged 6, 12 and 15 years were evaluated in the urban school (275) and rural (225) Multan District area; The experience and frequency of decay in rural and urban areas are shown in Table 2.

**Table 2: Caries experience and frequency in rural and urban areas**

Age (years)	Region	deft (%)		DMFT (%)		Pufa (%)		PUFA (%)	
		=0	>0	=0	>0	=0	>0	=0	>0
6	Rural - 125	29 (23.2)	96 (76.8)	100 (80.0)	25 (20)	64 (51.2)	61 (48.8)	122 (97.6)	3 (2.4)
	Urban - 99	48 (48.5)	51 (51.5)	96 (97)	3 (3)	73 (73.7)	26 (26.3)	99 (100.0)	0
12	Rural - 99	81 (81.8)	18 (18.2)	39 (39.4)	60 (60.6)	91 (91.9)	8 (8.1)	95 (96)	4 (4)
	Urban - 131	68 (59)	63 (48.1)	120 (91.6)	11 (8.4)	98 (74.8)	33 (25.2)	125 (95.4)	6 (4.6)
15	Rural - 112	107 (95.5)	5 (4.5)	59 (52.7)	53 (47.3)	111 (99.1)	1 (9)	104 (92.9)	8 (7.1)
	Urban - 123	121 (98.4)	2 (1.6)	67 (54.5)	56 (45.5)	121 (98.4)	2 (1.6)	115 (93.5)	8 (6.5)

deft: Decayed, extracted, and filled teeth, DMFT: Decayed missing filled teeth

The average prevalence of caries (CPOF + tactile > 0) is 37.37% in rural and 26.28% in urban and the average prevalence of untreated dental caries (PUFA + PUFA > 0) is shown in Table 1.

For the last 6 years, the ratio of untreated voids has been found to be 50% and 53.33%, and for 15 years, in urban and rural areas the children have been found 16438 and 41.05% for 12 years 17.54. As shown in Table 4, % and 15%, respectively.

**Table 4: Ratio of untreated caries and PUFA in urban and rural areas**

Age (years)	Rural	Urban
6	53.33	50
12	16.438	41.05
15	15	17.54

There was no statistically significant difference between urban and rural areas. The results of this study showed that in the prevalence of tooth decay, the caries prevalence was significantly higher in the age group of 6, in rural areas, but not in the treatment. The "untreated caries rate PUFA" in the rural area is 6 years higher; When they were 15 years old, children had higher levels in the urban area.

**DISCUSSION:**

(Oziegbe et al., 2013 Petersen et al., 2005) Dental caries is the most common childhood disease and is the most common non-communicable disease globally. Most tooth decay is not treated as a significant effect on the overall health, life, productivity, behavior, development and quality of the children's educational achievement for groups of 6, 12 and 15 years old In this study, 500 students and urban children were assessed for their results using DPFC / right and PUFA / PUFA indexes using tooth decay if their state and dental decay were not treated.

Index DMFT data collection is used around the world for rotten teeth, but scoring teeth "shown for removal" provides limited information about the severity of advanced injury, but it is not correct for removal. If this is not treated, dental caries does not provide accurate information about the clinical results of the information. At the same time, the rate of deterioration is not only that, but also the proportion of incomplete components (M) and complete (F), because the actual prevalence rate of tooth decay may be more than that or over the past

decade, the International Caries Epidemiology has focused on the development of more sensitive diagnostic criteria for the evaluation of early stages of decay in developed nations. Nevertheless, in developing countries such as Pakistan, even though there is a reduction in tooth decay, a large part of decay is not treated, which results in countless outcomes, so a diagnosis index that addresses the next step is needed. For this reason, we used the "PUFA / pufa" index together with the DMFT / haptic index, which serves as an excellent epidemiological and educational tool to report the outcome of untreated caries lesions in a population. This PUFA / pufa index defines four different clinical settings for improved caries that provide a "face of reality" for predominant and often overlooked mouth conditions, which can be more serious than caries, and selected age groups. In the basic methodology of oral health research, WHO recommended index age for oral health assessment . In this study, DMFT / haptic prevalence in different age groups was 37.37% and 26.28% in rural and urban children respectively; This was done by Adekoya-Sofowora et al. (10.9%) in Nigeria Adeniyi et al. (10.9%) and Öziegbe and

Esan (16.9%). However, due to the lack of uniformity in the selection of samples, age groups and examination procedures, comparisons between studies should be made with caution.

The incidence of untreated PUFA / pufa tooth decay was 11.9% in rural areas and 10.7% in urban children, and this rate was higher in Figueiredo et al. (2011) were Brazilian children between the ages of 5 and 6 (23.7%), Monse et al. In the Philippines (85%), Baginska et al. Among the Polish children (43.4%), Monse et al. (56%), Benzian et al. (55.7%) and Leal et al. (26.2%). This inconsistency can be attributed to the increased frequency of caries as well as to limited tooth decay due to variability in eating habits.

The prevalence of untreated rot, the proportion of PUFA (53.33% and 50% for rural and urban children for 6 years, 41.05% and 16.43% for 12 years, respectively), experienced more decaying experience in rural areas than urban children. Children living in rural areas may be less likely to benefit from physical obstacles such as water fluoridation, socioeconomic difficulties, transportation distance, and lack of transport in proportionate proportion of rural patients / dentists. (1: 250,000) are used less often in pre-school children living in rural areas than in dental care (53% vs. 45%, National Health Interview Survey, 1997 and 1998). For this reason, it is not surprising that children in rural areas have more dental burden than children in urban areas. For rural and urban children over 15 years, this rate was 15% and 17.54%, while the mild increase in urban children at this age; As in this age, the child enters puberty, changes in eating habits, increased exposure to food with high sugar content, greater independence, and oral hygiene responsibility often increase the risk of dental decay. According to a survey conducted in the Pakistan population, the proportion of adolescents with tooth decay between the ages of 15 years is increasing to 77.9%. In many studies the relationship between age and dental decay frequency has been reported. Caries frequency is high in a group of 6 years old; this is consistent with many studies and this study is mainly due to parents' awareness and negative attitude towards primary school teeth; It is thought that only 4% of parents have knowledge about temporary teeth, and 82% of parents think primary teeth are not important, which may depend on cultural beliefs or beliefs. According to the National Oral Health Survey, the average DMFT / hand skill of 12 year olds living in Pakistan in 2002-2003 is 1.8 (Maru et al., 2012), the decay frequency in Pakistani children is between 12 and 14 years, from 60.41% to 79.48% (Shanbhog et al., 2013) and 17.3% for those aged between 5 and 14

years in the rural population over 55 years of age. According to the adult dental health survey, 2009; Between 16 and 85 years of age there is a 31% increase in caries frequency. Exposure of the teeth to environmental insults in the mouth of older older children may indirectly increase the likelihood of having a further stage in the continuity of dental disease, which is important for our results.

#### CONCLUSION:

This new index (PUFA) will provide quantitative and qualitative information on untreated dental decay in a clinical trial-based individual or in the population and will provide health planners with additional planning and treatment for effective planning and treatment when used in combination with the DMFS index . target group. Thus, the use of the PUFA / PUFA index as a complement to the classic caries indicates may address the neglected problem and consequences of untreated caries. In addition, PUFA / PUFA recipients can be used by the epidemiologist and health care providers to plan, monitor and evaluate treatment.

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