

Knowledge, Perceptions and Oral Health Status among General-OPD attendees in a tertiary care Hospital of Darjeeling District, West Bengal

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Abstract: Oral diseases have a persistent public health problem not only in India but also globally. Present study aims to determine the knowledge, perception and oral health status among patients attending in a rural Medical College of West Bengal. Present cross-sectional study was done among 202 General-OPD attendees in North Bengal Medical College. 57.4% of the study populations have knowledge of brushing once, that too only in the morning. 83.1% study populations were unaware about flossing of teeth. 44.05% had decayed teeth, 35.6% had missing teeth and 11.38% had filled teeth. 41% had average DMFT score where as 20% had poor or very poor. 61% of our study population had some form of dental morbidities. For raise the awareness regarding oral health among the people, more media campaigning should be necessary.

Keywords: Knowledge, Oral Health, DMFT

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I. Introduction

Oral diseases have been a persistent public health problem globally, with almost every individual experiencing poor oral health at least once in their lifetime ^[1,2]. Oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity ^[3,4]. Oral health affects the general health, well-being, education and development of children and their families ^[5], and diminishes the quality of life ^[2,3]. Chronic oral infections can pose a risk for diabetes, cardiovascular diseases like stroke, respiratory diseases, low birth weight, preterm births ^[1,4].

Among adolescents, 50.67% suffer from dental caries, and the percent rises to 67.49 in the age group of 16-19 years. In the age group of 20-34 years, 85.58% people are found with dental caries, missing or filled permanent teeth and the data rises to 94.30% in the age group of 35 – 49 years ^[6].

According to a study conducted by WHO, when the children were asked regarding health of their teeth and gums, 28% of American children described data as excellent as compared to 6% of Indian group. Moreover, 16% of Indian children were not aware of the status of their own teeth and gums. 35% of Indian children never visited the dentist as compared to 11% of American children in the past 12 months ^[4].

Though many studies are conducted in different parts of the World, the review of literature indicates that there is a great deficiency in baseline data concerning the oral health of rural Indian population. Hence an attempt has been made to determine the knowledge, perception and oral health status among patients attending in a rural Medical College of West Bengal.

II. Objectives

1. To Find out knowledge and perceptions of oral health among General OPD Patients
2. To assess Oral health status among the study population.

III. Materials & Methods

It was a descriptive type of observational study with cross-sectional design and study was conducted in General-OPD of North Bengal Medical College and Hospital, Sushrutanagar from July-August'2017). Total Sample size was 202 and study population were the patients attending General-OPD with following inclusion & exclusion criteria:

- Inclusion criteria: Patients who were above 18 years of age and patients who gave consent to participate.
- Exclusion criteria: Patients with severe disease and patients having Oral malignancy and not able to communicate.

After briefing about the purpose & nature of the study, informed consent was taken verbally and after that data were collected by interviewing technique and clinical examination with the help of pre-designed, pre-tested, semi-structured questionnaire. Collected data was compiled in MS Excel sheet, correctly arranged, sorted and principles of descriptive statistics were used.

Following study variables were enquired–

- Background variables: Age, Gender, Place of residence, Religion, Ethnicity, Education, Type of family, S-E Status
- Knowledge variables: No of brushing, Time of brushings, Substance use for brushing
- Perception variables: Perception of dental health, gums, times of visit to dental surgeon
- Oral Health Status variables: Caries, Gum swelling, Plaque, Mal-alignment, any decay, missing or filling of teeth and DMFT Score

Operational Case Definitions –

- **FLOSSING OF TEETH:** Flossing is a tooth cleaning technique that uses a small piece of thread like material, called floss, to clean hard to reach areas like the surface between the teeth and around the gum line.
- **DENTAL CARIES OR DECAY:** It is an infectious microbiologic disease of the calcified tissues of the teeth, characterized by demineralization of the inorganic portion and destruction of the organic substance of the tooth
- **Clinical Diagnosis:** Visual inspection of oral cavity—black spots on tooth(painful), sensitivity to hot and cold, swelling around the effected tooth and tenderness of draining lymph node (SUBMANDIBULAR LYMPHADENOPATHY).
- **CALCULUS:** Calculus or tartar is a form of hardened dental plaque. It is caused by precipitation of minerals from saliva and gingival crevicular fluid in plaque on teeth.
- **DMFT Score:** It is calculated by adding no. of decayed, missing and filling teeth.

IV. Results

A descriptive cross-sectional study regarding the Knowledge, Perceptions and Oral Health Status among patients attending General OPD was conducted in North Bengal Medical College & Hospital between July – Aug 2017. Study shows: 35.6% of the study population belonged to age group 21-30 years and 54.4% of the subjects were males. 56.4% of study populations were resides in rural areas, 17.8% of study population were illiterate, while 6.9% were just literate. Around one-third of the study population belonged to class IV and V of the socio-economic group. 84.6% of the study population said toothbrush necessary for cleaning of their teeth but rest was said neem stick and finger. 57.4% of the study populations have knowledge of brushing once, that too only in the morning. 83.1% study populations were unaware about flossing of teeth. 58.41% of the study population thought that dental problems affect general health. Only 3.46% of the study population visited the dentist regularly, while. 89.60% did so only when needed. 17.82% of the study population described the condition of their teeth and gums as poor.

88-95% of the study population felt that oral health affected their daily activities like eating, sleeping, smiling, cleaning teeth and social contact. About half of the study population suffered from caries. 36.6 % of the study population showed mal-alignment. Out of our study population, 44.05% had decayed teeth, 35.6% had missing teeth and 11.38% had filled teeth. 41% had average DMFT score where as 20% had poor or very poor. 61% of our study population had some form of dental morbidities (based on DMFT Score). People with low socio economic status and low educational status have more dental morbidities.

V. Discussion

Present study was tried to determine the knowledge, perception and oral health status among patients attending in a rural Medical College of West Bengal. Conditions of oral health judge by DMFT Score. It was calculated by adding no. of decayed, missing and filling teeth. In present study most of the population (35.9%) belongs to 21-30 years age group & 54.4% were male, whereas study conducted by Vyshalee L Kuppuswamy et al^[7] male and female both were 50% each and mean age of study group were 13 years. Present study showed more than half (57.4%) of the study population had knowledge on brushing in one time, that was in the morning but it was 63.6% in study conducted by Manna et al^[8]. Present study, 83.1% were unaware about flossing of teeth whereas study conducted by Vyshalee L Kuppuswamy et al^[7] it was 47%. Present study, 44.05% had decayed teeth, 35.6% had missing teeth and 11.38% had filled teeth, 61% of study population had some form of dental morbidities (based on DMFT Score) but study conducted by Manna et al^[8] 37.2% had some form of dental morbidities.

VI. Conclusion & Recommendation

More than half (57.4%) of the study population had knowledge that only one time brushing was necessary in 24 hrs and 83.1% were unaware about flossing of teeth. Only 3.46% of the study population visited the dentist regularly, while 89.60% did so only when needed. About half of the study population suffered from caries. 61% of study population had some form of dental morbidities (based on DMFT Score). People with low socio economic status and low educational status have more dental morbidities.

So, it can be recommended, that to raise the awareness regarding Oral Health among the people, more media campaigning should be done. Public awareness programs should be run involving health workers, nurses, medical and paramedical students. Documentaries, posters, pamphlets can be used to generate awareness among the people.

LIMITATIONS:

This was a cross sectional study which included a small sample. Sample size determination and proper sampling technique was not adopted. Data was collected in hospital OPD setting, for more generalizability community based study would have been better.

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TABLES & CHARTS:

Table – 1: Background Information

Age Group (yrs.)	Number (n)	Percentage (%)
<20	20	9.9
21-30	72	35.7
31-40	47	23.3
41-50	32	15.8
51-60	20	9.9
61-70	11	5.4
Total	202	100.0
Gender	Number (n)	Percentage (%)
Male	110	54.5
Female	92	45.5
Total	202	100.0
Residence	Number (n)	Percentage (%)
Rural	114	56.4
Urban	88	43.6
Total	202	100.0
Socio-Economic Status (Modified B.G. Prasad Scale'2017)	Number (n)	Percentage (%)
Class I	24	11.9
Class II	59	29.2
Class III	52	25.7
Class IV	42	20.8
Class V	25	12.4
Total	202	100.0
Educational Status	Number (n)	Percentage (%)
Illiterate	36	17.8

Just literate	14	6.9
Primary	45	22.3
Secondary	46	22.8
HS or more	61	30.2
Total	202	100.0

Table – 2: Knowledge about Oral Hygiene (n=202)

Question	Materials	Number (n)	Percentage (%)
Q. 1: What should be used for cleaning of teeth?	Finger	11	5.4
	Toothbrush	171	84.7
	Neem stick	20	9.9
	Total	202	100.0
Question	Frequency	Number (n)	Percentage (%)
Q.2: How many times should study population brush in a day?	Once	116	57.4
	Twice	83	41.1
	More than twice	3	1.5
	Total	202	100.0
Question	Time	Number (n)	Percentage (%)
Q.3: When should study population brush their teeth?	Morning only	116	57.4
	Morning and night	86	42.6
	Night only	0	0
	Total	202	100.0
Question	Response	Number (n)	Percentage (%)
Q.4: Is study population aware of flossing of teeth?	Yes	34	16.8
	No	168	83.2
	Total	202	100.0

Table – 3: Perceptions about Oral Hygiene (n=202)

Question	Response	Number (n)	Percentage (%)
Q.1: Do study population think dental problem can affect general health?	Yes	118	58.4
	No	22	10.9
	Don't know	62	30.7
	Total	202	100.0
Question	Response	Number (n)	Percentage (%)
Q.2: How often should one visit their dentist?	Regularly	7	3.5
	When needed	181	89.6
	Don't know	14	6.9
	Total	202	100.0
Question	Response	Number (n)	Percentage (%)
Q.3: How do study population describe condition of their teeth and gums?	Very good	12	5.9
	Good	87	43.1
	Average	67	33.2
	Poor	36	17.8
	Total	202	100.0

Table – 4: Oral health findings after examination (n=202)

Different dental problems	Present		Absent		Total	
	Number (n)	Percentage (%)	Number (n)	Percentage (%)	Number (n)	Percentage (%)
Caries	102	50.5	100	49.5	202	100.0
Swollen Gums	27	13.4	175	86.6	202	100.0
Brown Stain	117	57.9	85	42.1	202	100.0
Calculus	101	50.0	101	50.0	202	100.0
Mal-Alignment	74	36.6	128	63.4	202	100.0
Sub Mandibular Lymphadenopathy	9	4.5	193	95.5	202	100.0

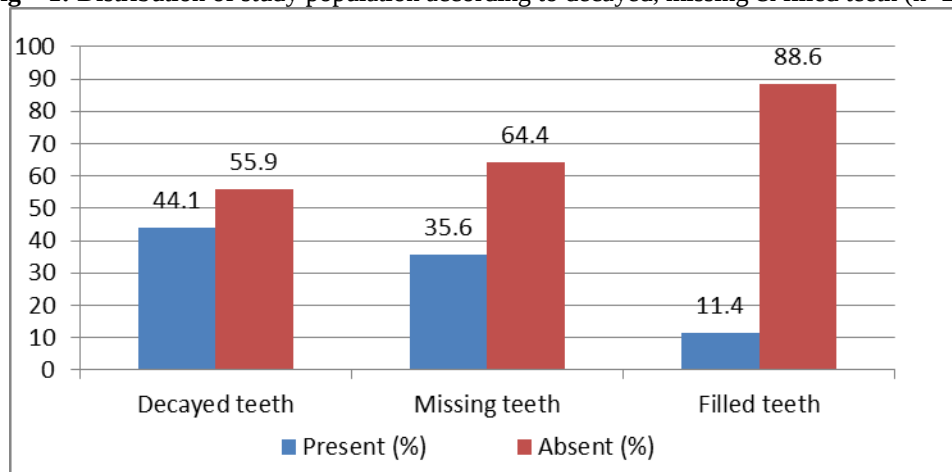
*Multiple responses

Table – 5: Distribution of study population according to DMFT Score (n=202)

Oral Health Status	DMFT Score	Number (n)	Percentage (%)
Very Good	0	80	39.6
Average	1	37	18.3
	2	32	15.8
	3	14	6.9
Poor	4	13	6.4
	5	8	4.0
	6	10	5.0
Very Poor	7	4	2.0
	8	3	1.5

	9	0	0
	10	1	0.5
Total		202	100.0

Fig – 1: Distribution of study population according to decayed, missing & filled teeth (n=202)



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