

Impact of Socioeconomic Status on Decayed, Missing, and Filled Teeth among Industrial Recruits of Bhopal City, India

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Abstract

Background: In this contemporary world urbanization leads to the development of various industries on an immense scale. Although rapid industrialization symbolizes the growth of any nation but it can impinge on the general as well as the oral health of their employees. **Aim:** To assess the impact of socioeconomic status (SES) on decayed, missing, filled teeth (DMFT) of industrial recruits of Bhopal city, India. **Materials and Methods:** A descriptive cross sectional study conducted among 448 industrial recruits of GEI (General Engineering Industry). Modified WHO-2013, oral health Proforma was used to appraise their dentition and related treatment necessities. Statistical analysis was done by using Chi square and ANOVA (Analysis of variance) test used for statistic analysis. **Result:** The result of this study showed that dental caries prevalence not remarkably exaggerated by socioeconomic status but the mean number of decayed, filled and missing teeth unwaveringly allied with socioeconomic status. **Conclusion:** This study concluded that dentition status of GEI, industrial recruits was not good, especially in the lower class SES. Therefore, to reduce this disparity equitable distribution of oral health of services are required.

Keywords: Decayed, filled, missing teeth, socioeconomic status

INTRODUCTION

In this contemporary world, urbanization leads to the development of various industries on an immense scale. Although rapid industrialization symbolizes the growth of any nation, it can impinge on the general as well as the oral health of their employees. Occupation is major source in the emergence of a variety of health problems due to anxious working schedule such as night shifts and stressed environment.

As we all know that oral health is deep-seated part of health and reflects the mirror image of general health, oral cavity acts to take a one-step forward for the passage of various diseases. A study conducted by Sudhanshu *et al.* also showed the association between occupational exposure and greater incidence of oral diseases.^[1]

The detrimental outcomes of occupational hazard may bestow visible marks on oral cavity, for example, teeth, jawbones, periodontal tissues, tongue, lips, and oral mucosa. A research has also shown that work environment is one of the main causes of stress.^[2] Job stress can enhance the adoption of nonhealthy behavior, such as worsening tooth brushing, neglecting oral

hygiene maintenance, and adopting adverse habits such as smoking, chewing, and drinking.^[3-5] Moreover, there is evidential proof, suggesting that job stress is an important risk indicator for oral health outcomes.^[6-9]

Oral health is always an enduring part of wide-ranging health, and several studies in the past have revealed an association between socioeconomic factors and oral health.^[10-15] Dental caries was pertinently afflicted by modernization and socioeconomic status (SES).

Therefore, occupational- and stress-related oral diseases are very common in industrial workers and primarily related to SES. General Engineering Industry (GEI) is one of the renowned industries of Bhopal city. Thus, the assessment of oral health status of these recruits will also provide future opportunity to assess the influence of socioeconomic factors

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on their oral health, and this was a pioneer attempt to assess the impact of SES on decayed teeth (DT), filled teeth (FT), and missing teeth (MT) among industrial employees of Bhopal city. Moreover, this study will also help provide the baseline data for strategically planning and formulation to deliver the better oral health promotive, curative, evaluative, and rehabilitative care.

MATERIALS AND METHODS

A descriptive cross-sectional study was conducted among 448 GEI industrial recruits of Bhopal city, for the assessment of their dentition status. The modified WHO-2013 oral health pro forma was used to evaluate dentition state and related treatment provisions of industrial recruits. To assess the SES of industrial recruits, Kuppuswamy scale used and for the assessment of oral hygiene knowledge, attitude and practices, questionnaire was used [Questionnaire 1].^[16]

The mode of illustration of recruits was based on the census list of the entire industrial employees. Thus, study inhabitants were chosen based on the following inclusion and exclusion criteria:

- All permanent industrial employees working since 3 years was included in the study.
- Employees who were reluctant to participate and absent during study period was excluded.

After setting if inclusion and exclusion criteria total sample size was 448.

The principled sanction was obtained from the Ethics Committee of the People's Dental Academy, Bhopal. A pilot study was accomplished along with thirty recruits to ensure the preferred viability with the modified WHO-2013 pro forma.

According to the age group, GEI employees ranged in strata of 18–35, 36–55, >56, and 36–55 years. Whereas, according to SES, employees ranged in upper-middle class, lower-middle class, and upper-lower class. A qualified solitary investigator calibrated regarding interpretation, understanding, and application of codes and criteria in the modified WHO-2013 pro forma. A recording clerk was also trained to enter the data.

Statistical analysis

The statistical analysis was done by using Statistical Package of Social Science (SPSS Version 20; Chicago Inc., USA). The Chi-square and analysis of variance were used to calculate the data; $P < 0.05$ was considered statistically significant.

RESULTS

A total 448 industrial recruits were examine, ranging in a strata of 18–65 years. The majority of industrial recruits were 36–55 years of age group and appear under lower-middle class of SES. Statically highly significant difference was present in the demographic distribution of industrial employees ($P = 0.001$) [Table 1].

Oral hygiene practices of industrial recruits revealed that 90.6% of industrial recruits used toothbrush and 98.7%

Table 1: Demographic distribution of industrial recruits according to age and socioeconomic status

Age group (years)	Upper middle, n (%)	Lower middle, n (%)	Upper lower, n (%)	Total, n (%)
18-35	10 (2.2)	106 (23.7)	44 (9.8)	160 (35.7)
36-55	42 (9.4)	13 (30.8)	66 (14.7)	246 (54.9)
>56	0	3 (6.7)	12 (2.7)	42 (9.4)
Total	5 (11.6)	27 (61.2)	122 (27.2)	448 (100.0)
χ^2	17.642			
P	0.001 (HS)			

HS: Highly significant

used toothpaste to clean their teeth. 74.1% of employees brushed their teeth once a day, while 36.6% changed their toothbrush in every 4–6 months. 40.6% of employees used toothpick/stick as interdental cleaning aids. 43.8% of employees rarely consumed sugar and their products. Statistically highly significant difference was present in brushing frequency in a day, frequency to change toothbrush and other cleaning aids used by different SES of industrial recruits ($P = 0.001$) [Table 2].

The mean DT, MT, FT, and decayed, missing, and filled teeth (DMFT) (dental caries experience) and dental caries prevalence of industrial recruits showed that the mean number of DT (1.34 ± 1.62) was higher among upper-lower class of SES. The mean number of MT (0.62 ± 1.19) was higher among lower-middle class of SES. The mean number of FT (0.54 ± 0.85) and DMFT (2.19 ± 1.92) was higher among upper-middle of SES. Statistically highly significant difference was present in FT ($P = 0.001$). Dental caries prevalence of industrial recruits was 58.0% and more in lower-middle class of SES [Tables 3 and 4].

DISCUSSION

A descriptive cross-sectional study was conducted among 448 GEI industrial recruits of Bhopal city, to assess the impact of SES on DMFT.

In the present study, recruits of GEI ranged in a strata from 18–35, 36–55, and >56 years of age group and upper-middle, lower-middle, and upper-lower class of SES. Demographically, industrial employees were abundantly in 36–55 years of age group and lower-middle class of SES.

In this study, we found that the mean number of DT or untreated dental caries was more in upper-lower class as compared to lower-middle and upper-middle class. This was probably due to their poor oral hygiene practices, lack of awareness, and poor utilization of dental services. Similar results were found by Chandra Shekar and Reddy;^[17] they found that the mean number of untreated dental caries was higher (0.96 ± 2.06) among lower SES.

In the current study, we found that the mean number of MT due to dental caries was higher among lower-middle class of SES. Although lower-middle class was quite satisfactorily

Table 2: Oral health practices of industrial recruits according to the socioeconomic status

Question	Option	Upper middle	Lower middle	Upper lower	Total	χ^2	P
Q1	1	52 (11.6)	262 (58.5)	120 (26.8)	404 (90.6)	4.244	0.37
	2	0	10 (2.2)	2 (0.4)	12 (2.7)		
	3	0	2 (0.4)	0	2 (0.4)		
Q2	1	52 (11.6)	268 (59.8)	122 (27.2)	442 (98.7)	3.86	0.145
	2	0	6 (1.3)	0	6 (1.3)		
Q3	1	24 (5.4)	206 (46.0)	102 (22.8)	332 (74.1)	33.523	0.001 (HS)
	2	26 (5.8)	62 (13.8)	20 (4.5)	108 (24.1)		
	3	2 (0.4)	2 (0.4)	0	4 (0.9)		
	4	0	4 (0.9)	0	4 (0.9)		
Q4	1	4 (0.9)	10 (2.2)	2 (0.4)	16 (3.6)	28.7	0.001 (HS)
	2	32 (7.1)	90 (20.1)	42 (9.4)	164 (36.6)		
	3	12 (2.7)	108 (24.1)	38 (8.5)	158 (35.3)		
	4	4 (0.9)	54 (12.1)	38 (8.5)	96 (21.4)		
	5	2 (0.4)	10 (2.2)	2 (0.4)	14 (3.1)		
Q5	0	10 (2.2)	102 (22.8)	48 (10.7)	160 (35.7)	69.119	0.001 (HS)
	1	0	6 (1.3)	0	6 (1.3)		
	2	4 (0.9)	10 (2.2)	2 (0.4)	16 (3.6)		
	3	12 (2.7)	116 (25.9)	54 (12.1)	182 (40.6)		
	4	26 (5.8)	34 (7.6)	10 (2.2)	70 (15.6)		
	5	0	6 (1.3)	8 (1.8)	14 (3.1)		
Q6	1	4 (0.9)	26 (5.8)	16 (3.6)	46 (10.3)	15.2	0.056
	2	20 (4.5)	64 (14.3)	34 (7.6)	118 (26.3)		
	3	6 (1.3)	60 (13.4)	18 (4.0)	84 (18.8)		
	4	22 (4.9)	120 (26.8)	54 (12.1)	196 (43.8)		
	5	2 (0.4)	2 (0.4)	0	4 (0.9)		

HS: Highly significant

Table 3: Mean decayed teeth, missing teeth, filled teeth, and decayed, missing, and filled teeth (dental caries experience) of industrial recruits according to socioeconomic status

SES	Mean \pm SD			
	DT	MT	FT	DMFT
Upper-middle	1.27 \pm 1.33	0.38 \pm 0.69	0.54 \pm 0.85	2.19 \pm 1.92
Lower-middle	1.13 \pm 1.39	0.62 \pm 1.19	0.20 \pm 0.54	1.94 \pm 2.48
Upper-lower	1.34 \pm 1.62	0.39 \pm 1.01	0.18 \pm 0.46	1.92 \pm 2.33
Total	1.21 \pm 1.45	0.53 \pm 1.10	0.24 \pm 0.57	1.96 \pm 2.38
ANOVA F	0.961	2.322	8.386	0.273
P	0.383	0.09	0.001 (HS)	0.76

SES	Dental caries prevalence			
	Yes (%)	No (%)	χ^2	P
Upper-middle	36 (8.0)	16 (3.6)	3.468	0.177
Lower-middle	158 (35.3)	116 (25.9)		
Upper-lower	66 (14.7)	56 (12.5)		
Total	260 (58.0)	188 (42.0)		

DMFT: Decayed, missing, and filled teeth, FT: Filled teeth, DT: Decayed teeth, MT: Missing teeth, SES: Socioeconomic status, ANOVA: Analysis of variance, HS: Highly significant, SD: Standard deviation

educated, the rationale of high number of MT possibly was due to the costly replacement of MT or lack of motivation and awareness on provision of reimbursement for dental care. Therefore, lower-middle class of SES prefers to extract their

teeth as a part of dental treatment, rather than emphasized on curative or rehabilitative treatment.

In this study, we found that the mean number of FT was high among upper-middle class of SES. Chandra Shekar and Reddy^[17] originated similar results; they also found that the mean number of FT (1.52 \pm 2.13) was higher among upper class of SES. This may be because upper class has good oral hygiene practices, high awareness, and excellent utilization of dental services and most importantly positive perception of the fact that the teeth are worth saving.

On the contrast of this, the mean DMFT was also higher among upper-middle class; this may be because of the dietary habits of upper-middle class people such as consumption of soft drinks, processed foods, and sticky foods. A research also revealed that the dental caries is lifestyle related disease. Prevalence of dental caries was increase by using soft drinks and sticky foods.^[18]

Therefore, the overall result of this study gives an emphasis on oral health education, promotion, and privileged preventive as well as curative and rehabilitative treatment requirements among lower as well as upper SES.

CONCLUSION

This study concluded that dental caries prevalence is not remarkably exaggerated by SES, but the mean number of

Table 4: Dental caries prevalence of industrial employees according to their age and socioeconomic status

	Caries prevalence		χ^2	P
	Yes (%)	No (%)		
Age groups				
18-35	82 (18.3)	78 (17.4)	12.107	0.002 (HS)
36-55	144 (32.1)	102 (22.8)		
>56	34 (7.6)	8 (1.8)		
Total	260 (58.0)	188 (42.0)		
SES				
Upper middle	36 (8.0)	16 (3.6)	3.468	0.177
Lower middle	158 (35.3)	116 (25.9)		
Upper lower	66 (14.7)	56 (12.5)		
Total	260 (58.0)	188 (42.0)		

HS: Highly significant, SES: Socioeconomic status

DT, FT, and MT is unwaveringly allied with SES. Dentition status of industrial recruits was not up to the standard level, especially in the lower class. Therefore, to reduce the disparity of oral health, equitable distribution of services among different SESs is important. Efforts needed to be taken for provision and utilization of more promotive, preventive, and curative dental services to meet the unmet dental necessities of industrial employees.

Recommendations

To reduce the disparity of oral health services among different SESs, every industrial premise has their own well-equipped dental as well as general hospital. A comprehensive treatment facility should be provided for all industrial employees in their premises, to elevate their oral health profile which also improves respond to people's justifiable demands with a fairness in economics.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

- Sudhanshu S, Pankaj A, Sorabh J, Nidhi S. Dental diseases of acid factory workers globally-narrative review article. *Iran J Public Health* 2014;43:1-5.
- Stansfeld S, Head J, Marmot M. *Work Related Factors and Ill Health: The Whitehall II Study*. Norwich: Health and Safety Executive; 2000.
- Pickering TG. The effects of environmental and lifestyle factors on blood pressure and the intermediary role of the sympathetic nervous system. *J Hum Hypertens* 1997;11 Suppl 1:S9-18.
- Abegg C, Marceles W, Croucher R, Sheiham A. The relationship between tooth cleaning behaviour and flexibility of working time schedule. *J Clin Periodontol* 1999;26:448-52.
- Matthews KA, Gallo LC, Taylor SE. Are psychosocial factors mediators of socioeconomic status and health connections? A progress report and blueprint for the future. *Ann N Y Acad Sci* 2010;1186:146-73.
- da Silva SR, Castellanos Fernandes RA. Self-perception of oral health status by the elderly. *Rev Saude Publica* 2001;35:349-55.
- Breivik T, Thrane PS, Murison R, Gjermo P. Emotional stress effects on immunity, gingivitis and periodontitis. *Eur J Oral Sci* 1996;104:327-34.
- Aurer A, Aurer-Kozelj J, Stavljencić-Rukavina A, Kalenić S, Ivić-Kardum M, Haban V, *et al.* Inflammatory mediators in saliva of patients with rapidly progressive periodontitis during war stress induced incidence increase. *Coll Antropol* 1999;23:117-24.
- Genco RJ, Ho AW, Grossi SG, Dunford RG, Tedesco LA. Relationship of stress, distress and inadequate coping behaviors to periodontal disease. *J Periodontol* 1999;70:711-23.
- Petridou E, Athanassouli T, Panagopoulos H, Revinthi K. Sociodemographic and dietary factors in relation to dental health among Greek adolescents. *Community Dent Oral Epidemiol* 1996;24:307-11.
- Freire Mdo C, de Melo RB, Almeida e Silva S. Dental caries prevalence in relation to socioeconomic status of nursery school children in Goiânia-GO, Brazil. *Community Dent Oral Epidemiol* 1996;24:357-61.
- Whittle JG, Whittle KW. Household income in relation to dental health and dental health behaviours: The use of super profiles. *Community Dent Health* 1998;15:150-4.
- Al-Hosani E, Rugg-Gunn A. Combination of low parental educational attainment and high parental income related to high caries experience in pre-school children in Abu Dhabi. *Community Dent Oral Epidemiol* 1998;26:31-6.
- Jorgensen EB. Effect of socio-economic and general health status on periodontal conditions in old age. *J Clin Periodontol* 2000;27:83.
- Finn. *Text Book of Clinical Pedodontics*. 4th ed. USA: W.B. Saunders Company; 1991. p. 470.
- Ravi Kumar BP. Kuppaswamy's socio-economic status scale—A revision of economic parameter for 2012. *Int J Res Dev Health* 2013;1:2-4.
- Chandra Shekar BR, Reddy C. Oral health status in relation to socioeconomic factors among the municipal employees of Mysore city. *Indian J Dent Res* 2011;22:410-8.
- Chopra A, Dhawan A, Seth H, Mohan D. Association between parental and offspring's alcohol use-population data from India. *J Indian Assoc Child Adolesc Ment Health* 2008;4:38-43.

QUESTIONNAIRE

Questionnaire 1: Questionnaire for data collection

People's Dental Academy, Bhopal, M.P

Dept. of Public Health Dentistry

Oral Health Status and Treatment Needs Among Employees Of General Engineering Industry(GEI),

Bhopal City,(M.P.) India

Proforma

A) GENERAL INFORMATION:

S.NO:

NAME:

SEX:

DATE: _____

PLACE:

AGE:.....

B) Dietary habits

i. Type of diet.

1. Vegetarian

2. mixed

ii. Consumption of snacks or sugar between meals.

Yes

No

C) Kuppaswamy's Socioeconomic Scale (2012)

I. Education

7 Profession or Honours 6 Graduate or Post Graduate 5 Intermediate or Post High School Diploma 4 High

School 3 Middle School 2 Primary 1 Illiterate

II. Occupation

10 Profession 6 Semi-Profession

5 Clerical, Shop Owner, Farmer 4 Skilled Worker 3 Semi- Skilled Worker

2 Un Skilled Worker 1 Unemployed

III. Family Income per month in Rs.

12 > 36,997 10 18,498 – 36,996

6 13,74-18,497 4 9249– 13,873 3 5547 – 9248

2 1866 – 5546 1 < 1865

IV. Interpretation Scores (SES)

(I) 26-29 Upper Class (II) 16-25 Upper Middle (III) 11-15 Lower Middle

(IV) 5-10 Upper Lower

(V) < 5 Lower

D) Which of the following habits used ?

1. Smoking (Bidi/Cigarette)

2. Chewing Tobacco

3. Smoking + Chewing

4. Snuffing

5. Using Tobacco Manjan

6. Alcohol

7. Paan Masala

8. Gutkha

9. Supari

E) Frequency of substance per day?

(1) 1-5

(2) 6-10

(3) 11-20

(4) 21-30

(5) >31

F) Duration of substance addiction in years:

(1) 1-5

(2) 6-10

(3) 11-20

(4) 21-30

(5) >31

Knowledge:

K1) क्या आपको लगता है कि मौखिक स्वास्थ्य को अच्छा बनाए रखने से सामान्य आरोग्य बेहतर हो सकता है?

1. हां
2. नहीं
3. नहीं पता

K2) क्या आप जानते हैं, निम्नलिखित में से कौन सा/से खाद्य वस्तुओं की वजह से दांत में सड़न लगती है?

1. मिठाई / वेफर्स/ बिस्कुट/ केक
2. ताजे फल
3. कच्ची सब्जियां
4. नहीं पता

K3) इनमें से कौनसी दांत चिकित्सा सेवा आपके परिसर में उपलब्ध है?

1. शासकीय अस्पताल
2. प्राइवेट क्लिनिक
3. कोई भी नहीं
4. नहीं पता

K4) आप दांत के सड़न की कैसे पहचान करेंगे?

1. दांत में छोटा सा काला दाग
2. दांत में बड़ा छेद
3. दर्द की शुरुआत होने पर
4. नहीं पता

K5) निम्नलिखित में से कौन सा मुंह के कैंसर का कारण होगा?

1. सुपारी चबाने तथा पान के उपयोग से
2. तम्बाकू के उपयोग से (सिगरेट/ सिगार/ बीड़ी/ नसवार / पान मसाला)
3. शराब पीने से

Attitude:

A1) आपके मुँह कि स्थिति कैसी हैं?

1. बहोत अच्छी
2. अच्छी
3. ठीक
4. खराब

A2) क्या आप कभी किसी दाँतों कि समस्या को लेकर दंत चिकित्सक के पास गए है?

1. हाँ
2. नहीं

A3) अगर हाँ, पिछले एक साल में आप कितनी बार दंत चिकित्सक से मिले हैं?

1. एक बार
2. दो बार
3. तीन बार
4. तीन से ज्यादा बार

5. नहीं मिलें हैं

A4) कौनसी समस्या के कारण आप दंत चिकित्सक से मिलें हैं?

1. दाँत का दर्द/ सड़न
2. मसूड़ो कि बीमारी
3. मुँह से बदबू आना
4. टूटे हुए दाँत
5. मुँह का छाला
6. दाँतों का हिलना
7. अन्य दुसरे कारण

A5) दाँतों में बहुत ज्यादा सड़न होने पर आप किस तरह का उपचार करना चाहेंगे?

1. दाँत कि नस का इलाज
2. दाँत निकलवाना
3. अभी के लिए कोई इलाज नहीं

Practice:

P1) आप दाँतों को साफ़ करने के लिए इनमें से क्या इस्तेमाल करते हैं?

1. टूथ ब्रश
2. ऊँगली
3. पेड़/ नीम कि डंडी (दतुनि)

P2) आप दाँतों को साफ़ करने के लिए कौनसे पदार्थ का इस्तेमाल करते हैं?

1. टूथ पेस्ट/ पाउडर
2. कोयला

P3) आप दिन में कितने बार ब्रश करते हो?

1. एक बार
2. दो बार
3. हर बार खाने के बाद
4. नहीं पता

P4) आप ब्रश कितने समय में बदलते हैं?

1. एक से तीन महीनों में
2. चार से छह महीनों में
3. एक साल या उससे ज्यादा
4. खराब होने पर
5. नहीं पता

P5) क्या आप दाँतों को साफ़ करने के लिए अन्य कोई साधनो का इस्तेमाल करते हैं, अगर हाँ, कौनसे?

1. डेंटल फ्लोस
2. अन्तर दंतिय (inter-dental) ब्रश
3. दाँतों में फँसने वाली काड़ी
4. माउथ वॉश
5. अन्य कोई

P6) आप कितनी बार शक्कर या शक्कर मिश्रित चीजों का सेवन करते हैं?

1. प्रति दिन
2. हफ्ते में कई बार
3. हफ्ते में एक बार
4. बहुत कम
5. कभी नहीं



Oral Health Status and Treatment Needs Among Employees Of General Engineering Industry(GEI), Bhopal City,(M.P.) India

सहमति पत्र

मैं _____ उम्र _____ डॉक्टर के द्वारा किए गए अध्ययन में भागीदारी के बारे में सूचित करता हूँ।

1. मैं, अपनी निजी जानकारी जैसे कि नाम, उम्र, लिंग, पता, पूर्व दंत चिकित्सकीय जानकारी, तथा अध्ययन के लिए अन्य सभी जरूरी तथ्य, अपने यथासंभव ज्ञान के आधार पर देने के लिए सहमत हूँ।
2. मैं, अपने अतःमुखीय, बाह्य मुखीय परीक्षण के लिए दंत चिकित्सक का पूरा सहयोग करूँगा एवम् अध्ययन के दौरान, दंत चिकित्सक द्वारा दिए निर्देशों कि पालना करूँगा।
3. मैं, दंत चिकित्सक को, मेरे द्वारा कि गयी जानकारियों एवम् अध्ययन से प्राप्त परिणामों को प्रस्तुत करने एवम् प्रकाशित करने कि अनुमति देता हूँ।
4. मैं, अध्ययन में किए गए मेरे सहयोग के लिए किसी भी प्रकार में मानदेय का दावा नहीं करूँगा, भले ही अध्ययन कि, किसी संस्था द्वारा वित्तीय सहायता कि जा रही हो। मैं अध्ययन में, स्वयं कि प्रेरणा एवम् इच्छा से भाग ले रहा हूँ।
5. यदि किसी कारणवश मैं, अध्ययनरत में भाग लेने में असमर्थ रहता हूँ, तो मैं अध्ययन से हट सकता हूँ।

मैंने, चिकित्सक द्वारा अध्ययन के संदर्भ में दी गयी जानकारियों को अच्छी तरह से पढ़ व समझ लिया है एवम् इसपर हस्ताक्षर कर दिए हैं।

दिनांक: _____ क्रमांक सं.: _____ पता- _____

Dentist's Signature/ हस्ताक्षर (दंत चिकित्सक)
हस्ताक्षर (सहभागी)

Participant's Signature/