

## ‘Oral Health Knowledge, Attitude, Practices and Oral Health Status among School Teachers in and Around Lucknow, UP’

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### Abstract:

**Background:** To assess the oral health knowledge, attitude, practices and oral health status among urban and rural school teachers in and around Lucknow.

**Materials and Methods:** A cross-sectional study was conducted on 797 school teachers of rural and urban, lucknow using W. H.O Oral Health Survey (1997) to assess the knowledge, attitude, practices and oral health status. Descriptive analysis was done and data was analyzed using chi square and ANOVA test.

**Results:** Most of the urban (82.83%:328) and (94.76%:380) of rural school teachers had good knowledge in relation to periodontal diseases in comparison to dental caries. The mean DMFT was more among urban males (2.54±2.40) and rural females (2.43±2.57) respectively. Prevalence of periodontal diseases, was higher among urban and rural female school teachers

**Conclusion:** In this study findings revealed that urban and rural teachers had fair knowledge about oral diseases but less knowledge related to preventive dentistry.

**Keywords:** Attitude, knowledge, oral health, practices, school, teacher.

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### I. Introduction

Teachers shape the future of country and prepare the young ones for life. Thus they should remain as role models for the children. Teachers cannot assist in developing well-informed students, if they themselves remain misinformed.<sup>1</sup> According to WHO, Global Data Bank (WHO 1995), more than 15% of the countries in the world show an average of 4.5 decayed, missing or filled teeth per child up to twelve years old.<sup>2</sup>

Teachers having good oral health knowledge can play an important role in the implementation of various school based oral health education and preventive programmes, which aim at improving oral health behaviour and status of child population.<sup>3</sup>

Studies in Tanzania, Romania, China and Saudi Arabia have reported positive attitudes among school teachers towards school based dental health education and a willingness to be involved in oral health promotion.<sup>4</sup> Present study has been undertaken to assess personal oral health behaviour and status among urban and rural schoolteachers. Since very few studies have been reported in the literatures especially so in developing countries like India.

This study was conducted with the aim to assess the oral health knowledge, attitude, practices and oral health status among urban and rural school teachers in and around Lucknow

### II. Materials and Methods

A cross-sectional study was conducted from February to May 2013 on school teachers of rural and urban, lucknow, to assess the knowledge, attitude, practices and oral health status. Ethical clearance was obtained from institutional ethical committee of Sardar Patel Post Graduate Institute of Dental & Medical Sciences, Lucknow. The calculation of sample size was performed to seek the results at 95% confidence level for which the value of  $z = 1.96$ . The allowable error taken has been 0.05, i.e.  $e = 0.05$ .

Lucknow city was divided geographically into five zones, east, west, north, south and central for urban and rural areas, approximately 22 wards came under each of these zones. A list of urban and rural secondary and higher secondary schools situated in and around Lucknow, was obtained from District School Officer (DSO). Stratified Random Sampling was done to select the schools. Necessary permission was taken from the Government authorities and heads of schools. All teachers working in the selected schools were included in the study. Teachers, not present on the scheduled date of survey, were excluded from the study. A total of 797

teachers were included in this study. A written informed consent was obtained from the schoolteachers to be examined before the commencement of the study.

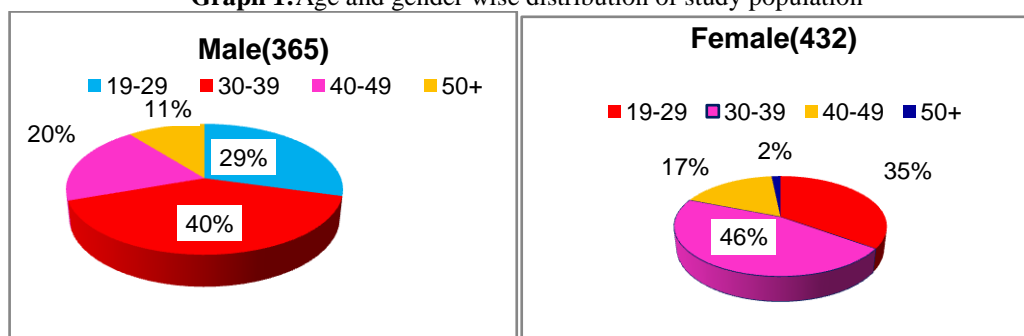
**Pilot Study:** A pilot study was conducted to assess the validity of the questionnaire and operational feasibility of the study. Proforma for clinical oral health status examination and data collection was prepared by using W. H.O Oral Health Survey (1997).

**Method of Data Collection:** A single calibrated investigator interviewed the subjects. A self-administered, closed-ended questionnaire was developed both in English and Hindi format. The components of the proforma included demographic informations, questionnaire about oral health knowledge, attitude and practices. Oral health status of an individual was assessed by clinical assessment for dental caries, periodontal disease, dental fluorosis and malocclusion. Five point Likert Scale was used to quantify Knowledge, attitudes and behaviour of urban and rural school teachers. Cronbach's alpha was applied for the reliability of the questionnaire and it was found to be 0.84.

**Statistical Analysis:** Statistical analysis was done using S.P.S.S version 16.0 software. The level of significance was chosen at  $p < 0.05$ . Chi Square test and ANOVA test were employed to analyze the data.

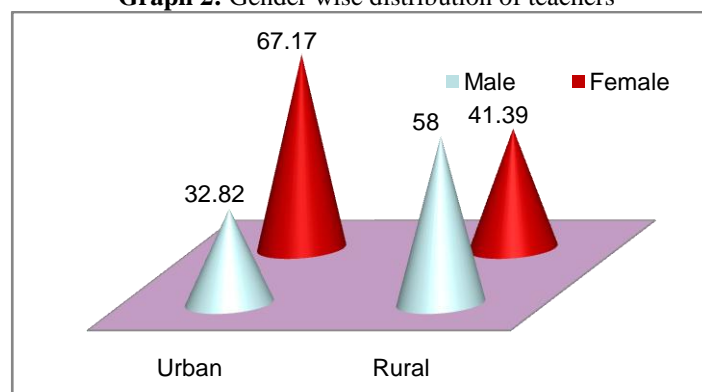
### III. Results

**Graph 1:** Age and gender wise distribution of study population



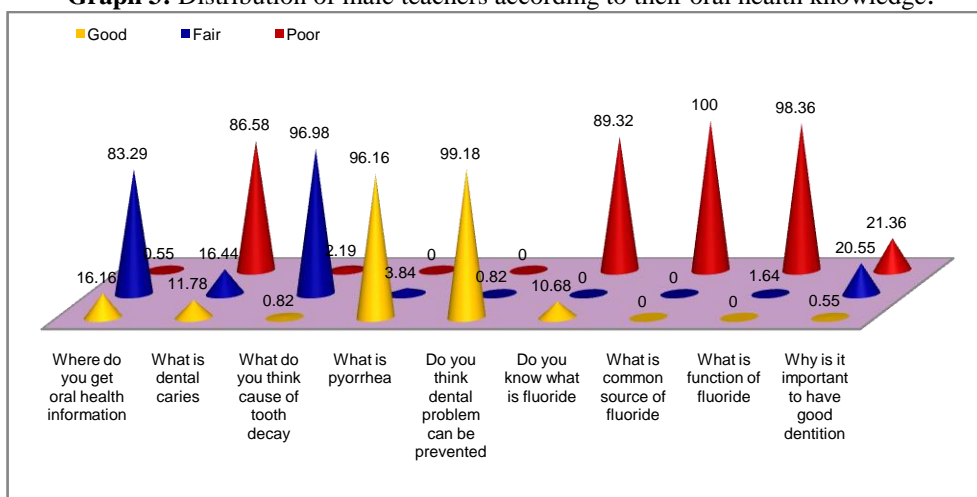
pie chart 1 depicts the distribution of study population according to age and gender. The age of the teachers ranged from 19-50 years with mean age of  $37.73 \pm 10.5$  years. Among them 45.79% (365) were males and 54.21% (432) females. The teachers were divided in to 4 age groups. About 43.41(346) of teachers belonged to 30-39 years followed by those belonging to 19-29years (32.37%:258), 40-49 years (18.44%:147) and 50 years and above (5.77%: 1.62)

**Graph 2:** Gender wise distribution of teachers

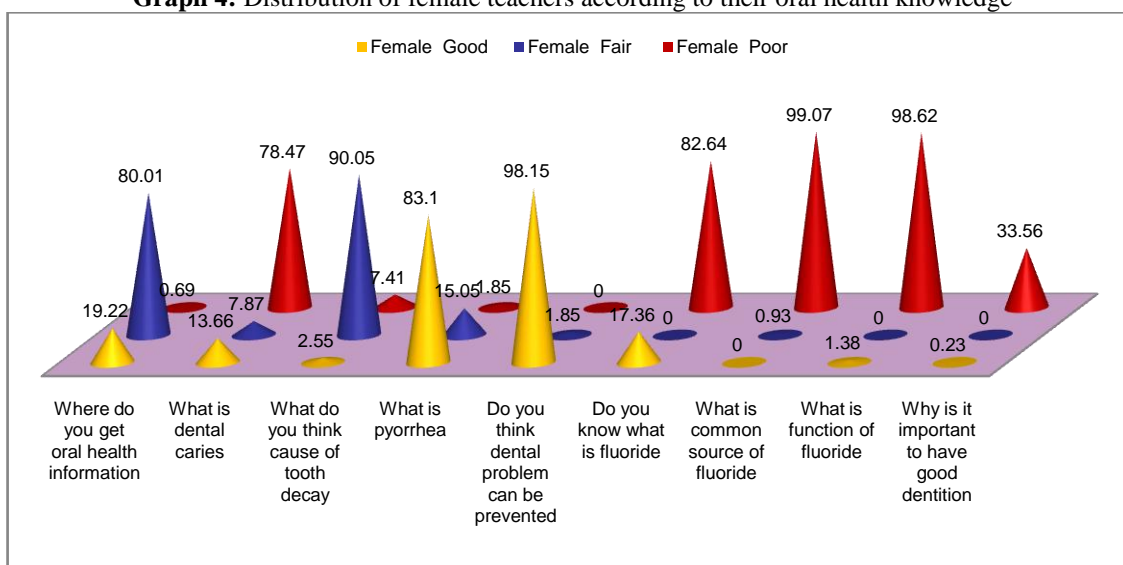


Graph 2 indicates the gender wise distribution of the study population according to location. Among urban teachers majority of them were females (67.17%:266) followed by 32.82% (130) males. Among rural teachers majority of them were males (58%: 235) followed by 41.39% (166) females.

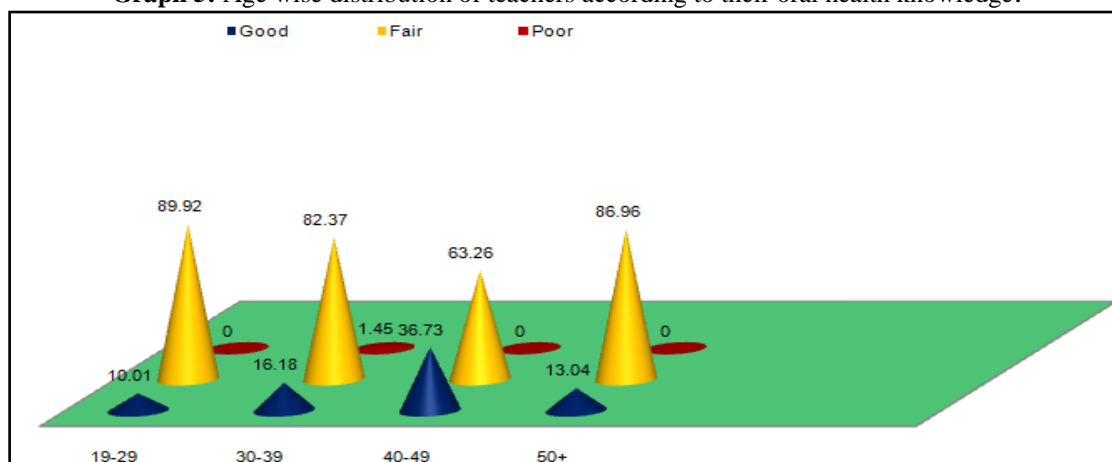
**Graph 3:** Distribution of male teachers according to their oral health knowledge.



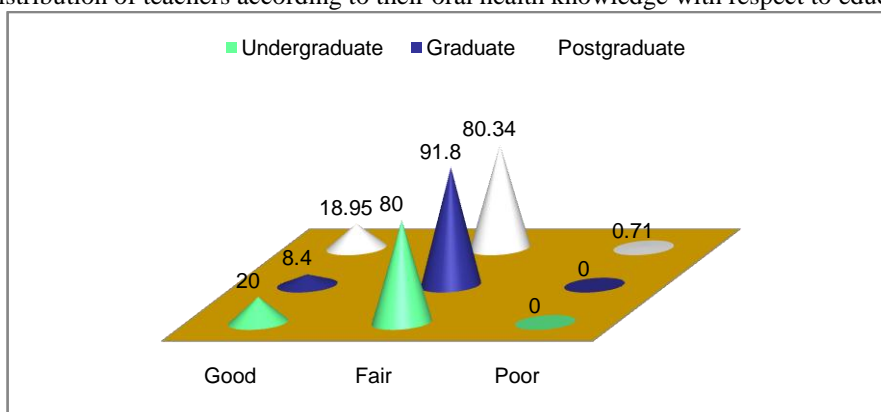
**Graph 4:** Distribution of female teachers according to their oral health knowledge



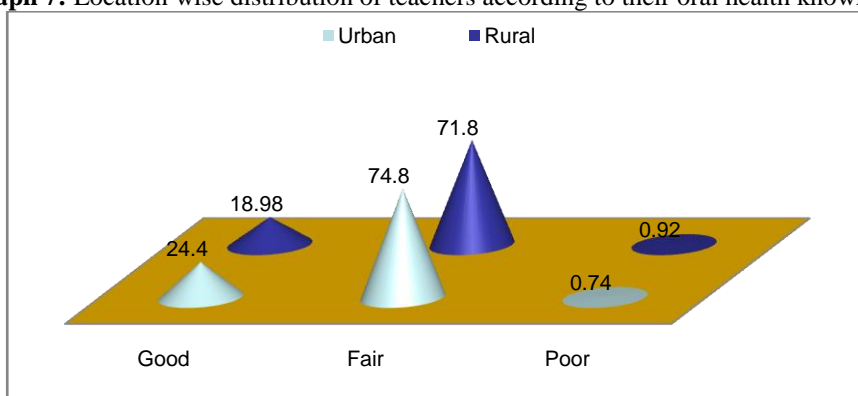
**Graph 5:** Age wise distribution of teachers according to their oral health knowledge.



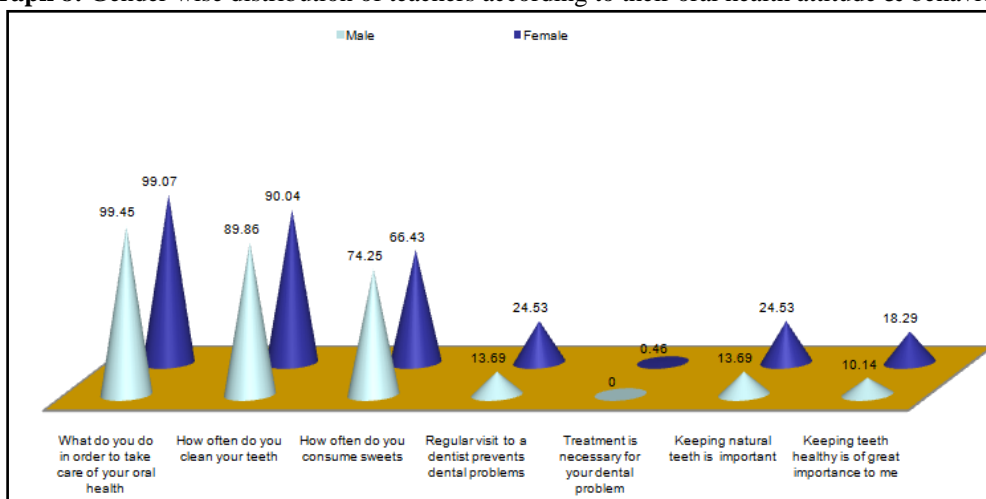
**Graph 6:** Distribution of teachers according to their oral health knowledge with respect to educational status.



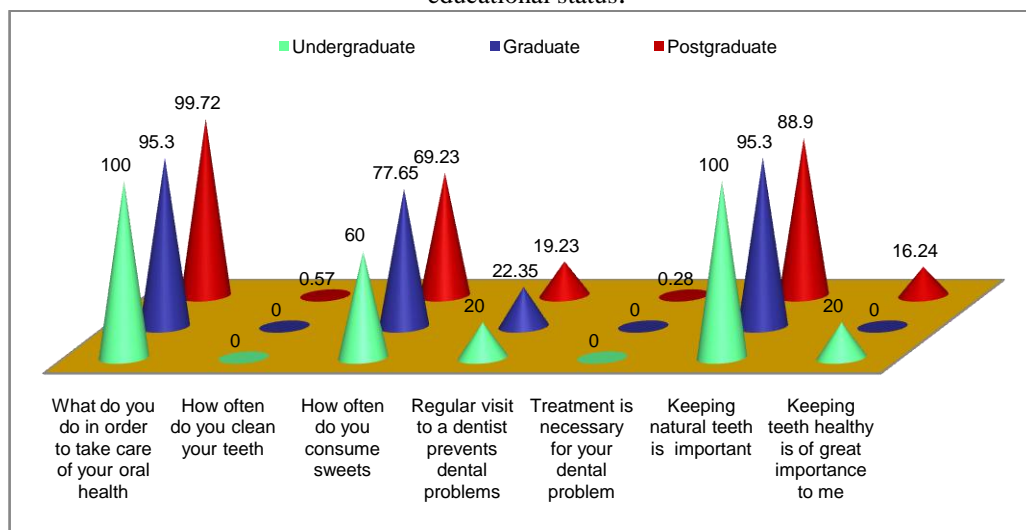
**Graph 7:** Location wise distribution of teachers according to their oral health knowledge.



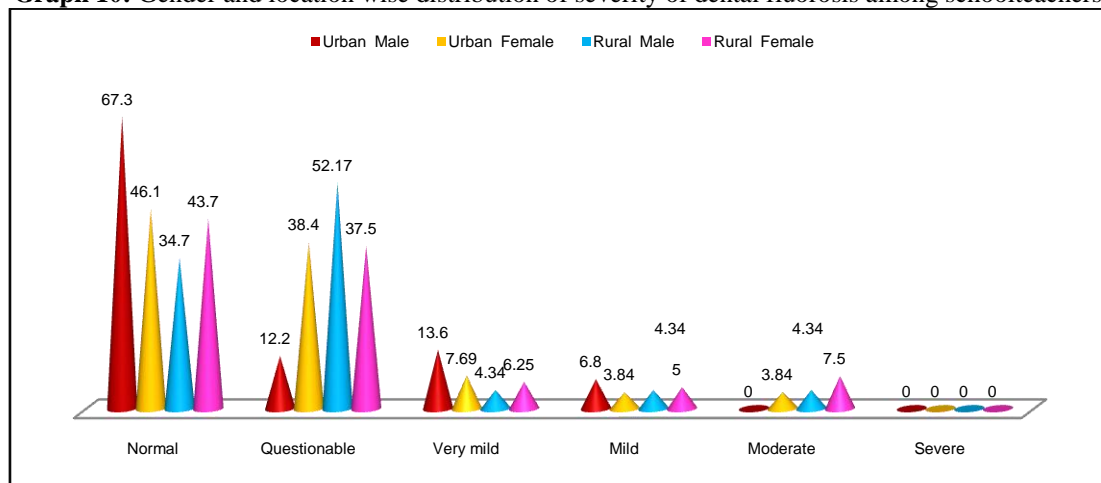
**Graph 8:** Gender wise distribution of teachers according to their oral health attitude & behaviour.



**Graph 9:** Distribution of teachers according to their oral health attitude & behaviour with respect to educational status.



**Graph 10:** Gender and location wise distribution of severity of dental fluorosis among schoolteachers.



#### IV. Discussion

- In this study findings revealed that urban and rural teachers had fair knowledge about oral diseases but less knowledge related to preventive dentistry.
- Most of the urban, and rural teachers had good knowledge about periodontal disease. However they did not have much knowledge about fluoride. These findings concur with results of the study by Poul Erik Peterson and Zhou Esheng (1998)<sup>5</sup>
- In this study most of urban and rural teachers affirmatively felt dental problems can be prevented. These findings coIn this study most of the urban teachers had good knowledge about importance of good dentition. These findings are similar with results of the study by Paul Erik Peterson, Loan Denali and Anca Samoila (1993).<sup>6</sup>
- A large proportion of urban and rural teachers had knowledge about tooth decay is caused by sugary food. The results were similar to study Poul Erik Peterson et al (1998).
- Regarding the oral hygiene aids almost all urban and rural teachers felt that tooth brush and toothpaste to be used as oral hygiene aid. These findings concur with results of the study by Paul Erik Peterson (1998). In response of visiting a dentist. Majority of rural teachers never visited a dentist. The results were similar to study Paul Lang et al (1990).<sup>7</sup>
- Most of the urban teachers answered affirmatively regarding visit to a dentist prevents dental problems. No statistical significance was observed between oral health knowledge and attitude with regard to educational status

- In the urban and rural males of age groups 40-49 and 50 yrs had higher mean M component ( $1.21 \pm 0.88$ ) and ( $1.42 \pm 0.75$ ) of DMFT. This observation is similar with the findings of Chikte U.M.E. et al (1990). Regarding prevalence of periodontal disease, findings revealed that urban and rural female school teachers, among all age groups had higher mean CPI score ( $0.76 \pm 0.89$ ) over males. This observation is similar with the study of Ritchie J. et al (1979).<sup>8</sup>
- Regarding prevalence of dental fluorosis in male and female school teachers belonging to rural and urban areas was 6.80% (very mild) fluorosis. This observation is similar with the study by Khalid Alam et al (2001).<sup>9</sup>
- Regarding severity of malocclusion it was found 5.76 % (15) and 18.7 % (30) of urban and rural females had severe and definite malocclusion. This observation is similar with the study by Burgerdijk R.C (1989).<sup>10</sup>

## V. Conclusion

- Regarding mean DMFT score, mean CPI score, dental fluorosis and malocclusion there was no significant difference in relation to their age, gender, educational status and geographical location. The study results suggest that there was no statistically significant difference in oral health knowledge, attitude and behaviour of schoolteachers in relation to their age, gender, educational status and geographical location. Regarding oral health knowledge, attitude and practices of schoolteachers were of fair degree. However there was evident gap between their knowledge and what they were really practicing.

## VI. Suggestions

- Continued Dental Education Programmes, Teachers Training programmes should be organized to impart scientific knowledge to teachers to improve their oral health.
- Efforts should be encouraged to educate teachers about modern preventive dentistry for oral health promotion among school children.
- It would be beneficial to include school teachers effectively in Oral Health Care delivery System especially school oral health care programmes.

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