# PREVALENCE OF PERIODONTITIS IN PARAMEDICAL STAFF WORKING IN A MEDICAL COLLEGE.

Sana Shah[1] , Mahrukh Shah[2] , Abid Laghari[3] , Prof Shaheen Shah[4 *]

**Abstract:**
The present study was aimed at assessing the periodontal status of paramedical staff, the sample was of 91 male adults, data was collected by interview, examination was done to find the periodontal status.

**Methodology:** Written consent was taken. Demographic details were recorded, including age ,gender, educational status and income .Age groups were stratified into 25-35 years ,36-45 years and 46-60 years. Educational level classified into illiterate or primary matric-Intermediate, graduate and above.Income groups were stratified as less than 10 thousand,10 thousand to 20 thousand and 20 thousand and above. Examination was done, the attachment loss and pocket depth was recorded with the help of periodontal probe HU FRIEDY PCP 2 with ,2-,4-,6-,8-,10-.12mm graduation .It was positioned parallel to the long axis of the tooth at each site, bleeding from the gums was also recorded.

**Result:** Our results show that there were 91male adults and average age range was 25-60years. Periodontitis in age group 25 t0 35years was 62%,age group 36 to 45years was 72%,and in age group 46 to 60years was 88%.It was highest in old age.

When periodontitis was compared in the three groups according to income status,the periodontitis was 23 % ,41% ,34% in staff getting salary less than10 thousand,10 to 20 thousand more than 20 thousand rupees respectively.

When periodontitis was compared in the three groups according to educational status, the periodontitis was 64% in illiterate and primary educated,it was 40% in staff who were matriculate or inter pass, and periodontitis was 20% in graduate respectively

**Conclusion:** periodontits is highly prevalent and is common in low income,less eduatated and older individuals.

**Keywords:** Periodontitis, Pocket Depth, Clinical Attachment Loss.

## Introduction:

Periodontitis is chronic infection of hard and soft tissue supporting the teeth.[1].The intensity of infection can be mild ,moderate or severe depending on pocket depth, (PD) attachment loss (AL )and gingival inflammation around teeth.[2]

In US the incidence of periodontitis is 47% of adults aged more than 30 years.[3]. Severe periodontitis was defined as having two or more interproximal sites with ≥6 mm attachment (not on the same tooth) and one or more interproximal sites with ≥5 mm pocket depth. Moderate periodontitis was defined as two or more interproximal sites with ≥4 mm clinical attachment (not on the same tooth) or two or more interproximal sites with pocket depth of ≥5 mm (not on the same tooth). Mild periodontitis was defined as two or more interproximal sites with ≥3 mm attachment and two or more interproximal sites with ≥4 mm pocket depth (not on the same tooth) or one site with ≥5 mm.

Periodontitis contribute extensively to the global burden of oral disease[4].The mild to moderate form of periodontitis is the most common with prevalence estimates ranging from13-57% depending on sample characteristics and the case definition used. [5,6,7]

More recently, goals for the year 2020 have been established jointly by FDI, WHO and International Association of Dental Research (IADR)[8].These goals involve reducing impact of oral disease health and psychological development.

Little attention is given to periodontitis in developing countries. So a study was conducted to find out status of periodontitis in the paramedical staff of a medical college.

## Material and Methods:

This study was conducted from July 2014-Dec 2014.The study was approved by the ethical committee .The study population included the paramedical staff working in Basic Medical Sciences, written consent was taken , and random sampling was done.

### Inclusion criteria.

Paramedical staff either sex.
Age above 25 years.
Less then 60 years.
Not taking antibiotics.

### Exclusion criteria.

Edentulous .
Workers less than 25 years more than 60.
Non consenting workers.

1. Operative dentistry trainee LUMHS
2. FCPS trainee AKU
3. Medical Technologist MMC
4. Professor Pharmacology MMC

## Methodology:

Written consent was taken. Demographic details were recorded, including age ,gender, educational status and income .Age groups were stratified into 25-35 years ,36-45 years and 46-60 years. Educational level classified into illiterate or primary matric-Intermediate, graduate and above.Income groups were stratified as less than 10 thousand,10 thousand to 20 thousand and 20 thousand and above. Examination was done, the attachment loss and pocket depth was recorded with the help of periodontal probe HU FRIEDY PCP 2 with ,2-,4-,6-,8-,10-.12mm graduation .It was positioned parallel to the long axis of the tooth at each site, bleeding from the gums was also recorded.

## Results:

In our study the age range of study population was 25 to 60 years,. they were all males and were divided according to there age groups educational qualification and income status, the age wise distribution is shown in table.1 and graph1.

Periodontitis in age group 25 t0 35years was 62%,age group 36 to 45years was 72%,and in age group 46 to 60years was 88%.It was highest in old age.

When periodontitis was compared in the three groups according to income status,the periodontitis was 23 % ,41% ,34% in staff getting salary less than10 thousand,10 to 20 thousand more than 20 thousand rupees respectively.

When periodontitis was compared in the three groups according to educational status, the periodontitis was 64% in illiterate and primary educated,it was 40% in staff who were matriculate or inter pass, and periodontitis was 20% in graduate respectively.

## Discussion:

The study shows that periodontitis has got a very high prevalence (73%) individuals had periodontitis ,lack of oral hygiene contributes towards its development and progression

Our study included only the male adults therefore we cannot report on the prevalence in female but many studies have reported preponderance in males,[9] also reported by syed wali pirani [10,-11]Our study also showed high incidence in workers whose income was less than 10 Thousand i.e (64)% the reason being not having oral health education, dearth of basic health care facilities and poverty. Our study also showed an inverse relation with educational status ,the illiterate or primary educated individual having higher incidence of periodontitis this is in agreement with. Borela et all .[12]Periodontitis is directly proportional to age greater is the age higher is the incidence it was seen in ...88..% In our study Periodontitis increases with age[13] it is directly associated with lower levels of education and higher level of poverty this is because they do not utilize the dental services.[14-15-16] smoking and diseases are other predisposing factors . The report of surgeon General on Health Consequences of smoking infers a causal relationship between smoking and periodontitis.

Chart.1 from Table1.correlation of periodontitis in relation with age

## Conclusion:

Our findings suggest that targeting interventions at high risk groups may be the most vital strategy to control and prevent periodontitis these include those with low educated men,rural residents and poor.

## Suggestions:

Preventive dental care programs must be arranged and modifiable factors like smoking and diabetes control be addressed .

The dental surgeons must provide tobacco cessation counseling , educate persons on benefits of regular dental care.

**Table1.correlation of periodontitis in relation with age**

| Age in years | Total No: | Periodontitis Yes | % Yes | periodontitis No | % No |
|---|---|---|---|---|---|
| 25 to 35 | 26 | 16 | 62% | 10 | 38% |
| 36 to 45 | 39 | 28 | 72% | 11 | 28% |
| 46 and above | 26 | 23 | 88% | 03 | 12% |

**Chart.1 from Table1.correlation of periodontitis in relation with age**

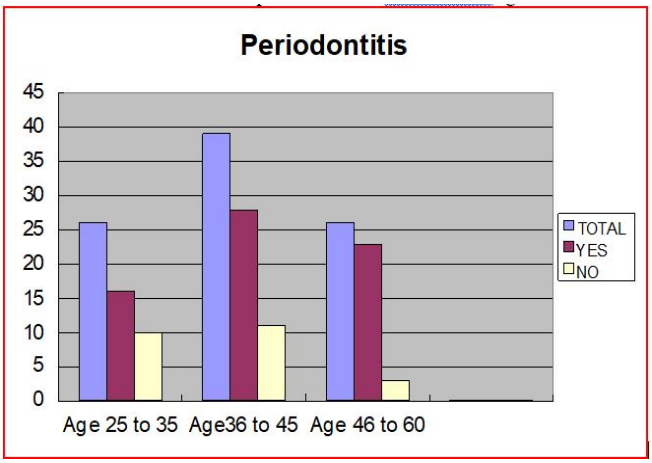


Table2.correlation of periodontitis in relation with salary

| Salary in rupees | Total No. | Perio-dontitis Yes | % Yes | Perio-dontitis No | % No |
|---|---|---|---|---|---|
| < 10 Thousands | 51 | 40 | 64% | 11 | 36% |
| > 10 Thousands | 25 | 19 | 40% | 06 | 60% |
| >20 Thousands | 15 | 05 | 34% | 10 | 66% |

Chart.2 Table2.correlation of periodontitis in relation with salary

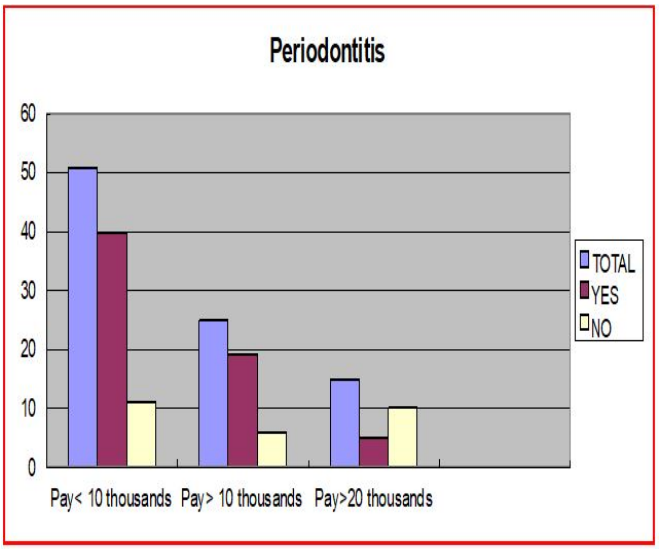
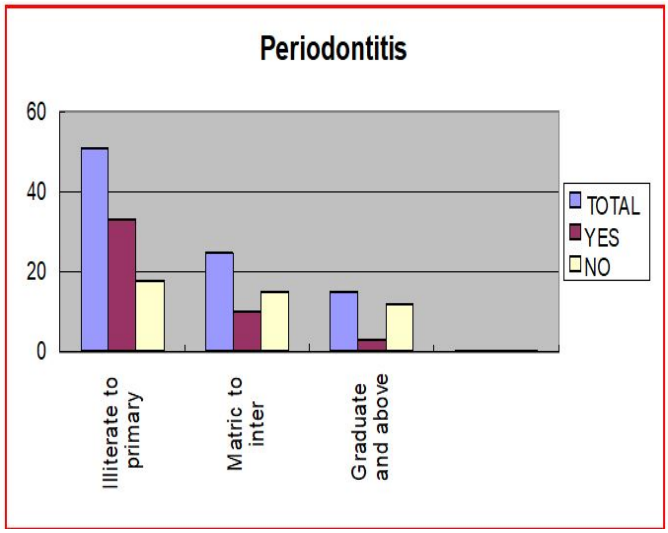



Table3.correlation of periodontitis in relation with Education

| Educational status | Total No | Perio-dontitis Yes | % Yes | Perio-dontitis No | % No |
|---|---|---|---|---|---|
| Illiterate to primary | 51 | 31 | 60% | 20 | 39% |
| Matric to inter | 25 | 11 | 44% | 14 | 56% |
| Graduate and above | 15 | 03 | 20% | 12 | 80% |

Chart.3 fromTable3.correlation of periodontitis in relation with Education




## References:


1. Page RC, Eke PI. Case definitions for use in population-based surveillance of periodontitis. J Periodontol 2007;78:1387-99.
2. Eke PI, Page RC, Wei L, Thornton-Evans GO, Genco RJ. Update of the case definitions for population-based surveillance of periodontitis. J Periodontol 2012;83:1449-54.
3. Eke PI, Dye Ba, Wei L, Thornton-Evans GO, Genco RJ. Prevalence of periodontitis in adults in the United States: 2009 and 2010. J Dent Res 2012;91:914-20.
4. Pace CC, McCullough GH. The association between oral microorganisms and aspiration pneumonia in the institutionalized elderly: review and recommendations. Dysphagia 2010;25:307-22.
5. Petersen PE, Bourgeois D, Ogawa H et al. The global burden oforal diseases and risks to oral health. Bull World Health Organ2005 83: 661-669.
6. Albandar JM, Brunelle JA, Kingman A. Destructive periodontal disease in adults 30 years of age and older in the United States,1988-1994. J Periodontol 1999 70: 13-29.
7. Sheiham A, Netuveli GS. Periodontal diseases in Europe. Periodontol-2000 2002 29: 104-121.
8. Corbet EF, Zee KY, Lo EC. Periodontal diseases in Asia and Oceania. Periodontol 2000 2002 29: 122-152.
9. Hobdell M, Petersen PE, Clarkson J et al. Global goals for oral health 2020. Int Dent J 2003 53: 285-288.
10. Qi Zhang,wang cx,bao HL,shen T,Zhao YJ,Zhao WH.The status and distribution of three preventive oral health behaviors among adults in china j Health

Educ.2013;2949-506 chinese

11. D. A. Perry and M. G. Newman, “Occurrence of periodontitis in an urban adolescent population,”Journal of Periodontology, vol. 61, no. 3, pp. 185–188, 1990.
12. J. Bagińska, M. Wilczyńska-Borawska, and W. Stokowska, “The evaluation of CPITN index among adults living in Podlasie region,” Advances in Medical Sciences, vol. 51, pp. 119–121, 2006
13. Borrell LN, Crawford ND. Socioeconomic position indicators and periodontitis: examining the evidence. Periodontol 2000 2012;58:69–83.
14. Eke PI, Dye Ba, Wei L, Thornton-Evans GO, Genco RJ. Prevalence of periodontitis in adults in the United States: 2009 and 2010. J Dent Res 2012;91:914–20
15. Borrell LN, Burt BA, Taylor GW. Prevalence and trends in periodontitis in the USA: from the NHANES III to the NHANES 1988 to 2000. J Dent Res 2005;84:924–30.
16. Borrell LN, Crawford ND. Social disparities in periodontitis among United States adults 1999–2004. Community Dent Oral Epidemiol 2008;36:383–91.
17. Gibson RM, Fisher CR. Age differences in health care spending fiscal year 1977. Soc Secur Bull 1979;42:3–16.