

Assessment of DMFT Score in Lower Income Employees of the University of Faisalabad

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ABSTRACT

Introduction: Maintenance of oral health is directly linked to general well-being of an individual. Oral diseases are most common of public health problems because it effects human life due to lack of awareness, affordability and socio economic factors. Oral diseases can adversely affect the worker by compromising their performance and human well being.

Material and Methods: Cross sectional research was done in The University of Faisalabad. The study participants included all the low income employees. All the employees of this category who were physically and mentally capable of responding to the questionnaire and provided informed consent were made part of the study. The 85 employees were selected and their DMFT score was assessed. SPSS version 23 was applied for data analysis.

Results: P value was statistically significant in patient's age group 1 (18-35 years) and group-2 (36-66) with oral Hygiene status and DMFT score.

Conclusion: Based on existing data it was concluded that in older patients DMFT score was high and there oral hygiene was not being properly maintained.

Keywords: Oral hygiene status, DMFT index, Socioeconomic status

INTRODUCTION

Healthy life is important for all human beings irrespective of racial, religion, and socioeconomics aspects^{1,2}. Oral and related tissues health makes an individual to eat, speak and socialize without disease, discomfort, or embarrassment and have a good impact on general health³. Moreover general health of an individual depends on his / her oral health. Incidence of dental caries and periodontal infections generally shows the participant's oral dental health condition^{3,4}. One's life can be effect by tooth loss¹.

Dental caries is multifactorial disease and is known to be affected by socioeconomic and sociodemographic factors. In countries with low income status the increase intake of sugar results in increase caries score. If one's cannot afford treatment cost then untreated carious lesion ends in tooth extractions¹.

Health is multifactorial and several factors influence the health of a society which includes genetics, lifestyle, environment, socioeconomic status (SES) and many others. Health cannot be isolated from its social context and the last few decades have witnessed that social and economic factors have as much influence on health as the medical intervention⁵. Socioeconomic factors are important determinants of health⁶.

Most studies identified the association between socioeconomic status and the prevalence of DMFT. Low socioeconomic status was associated with a high prevalence of DMFT and a high rate of tooth decay. Poor and less educated people were reported with increase dental caries¹. Maintenance of oral health is directly linked to general well-being of an individual. Oral diseases are most common of public health problems because it effects human life due to lack of awareness, affordability and socio economical factors. Oral diseases can adversely affect the worker by compromising their performance and quality of life⁷.

A healthy knowledge of employees' oral health status and associated factors will confirm application of more effective oral health promotion programs for them. Assessment of workers' oral health and related behaviors has been the subject of several studies⁸. Oral health in adults is directly linked to their income status, their life style, their surroundings and access to health services. In developing countries high index of caries, decayed and filled teeth is observed according to the previous data available⁹.

In this study we investigated the status of dental caries in low grade employees of university of Faisalabad.

METHODOLOGY

Cross sectional study was done in The University of Faisalabad. Study population included all the low income employees. Research protocols were reviewed with 'Research and ethics Committee' of The University of Faisalabad and was given ethical clearance. Official permission was taken from the Dean University Medical & Dental College.

All the employees of this category who were physically and mentally capable of responding to the questionnaire and provided informed consent were made part of the study. The sample size (n = 85) was calculated using the formula.

Literature was explored by several databases, like PubMed, Web of science and SCOPUS by means of: "Oral Health", "DMFT score" and "Low income employees" as keywords. Thirty research satisfied inclusion criteria. Quality assessment of all the included studies was performed. SPSS version 23 was applied for statistical analysis of the study.

RESULTS

Table 1: Correlation of Age and Oral hygiene status

Age	Oral Hygiene Status			Total
	Poor	Good	Satisfactory	
18-35	17	4	28	49
36-66	22	1	13	36
Total	39	5	41	85

*P-value < 0.05 is statistically significant.

Table 1 two age groups group-1 (18-35 years) and group-2 (36-66) correlated with Oral Hygiene status of all enrolled participants. Group 1 showed that 17 patients had poor Oral hygiene while in group -2 Oral hygiene status was poor in 22 patients. Out of 49 patients 04 patients oral hygiene status was good in group 1 but 01 was in group 2. Satisfactory results were in 28 patients in group-1 and 13 patients from group-2.

Table 2: Correlation of DMFT and Age

Age	DMFT			Total
	1-5	6-10	11-16	
18-35	17	22	10	49
36-66	6	8	22	36
Total	23	30	32	85

*P-value < 0.05 is statistically significant.

In Table – 2 association of Age and DMFT score was statistically significant. DMFT score was divided into 3 Mild (1-5), Moderate (6-10) and severe (11-16). In age group-1, 17 patients showed mild, 22 showed moderate and 10 showed severe DMFT score. While in age group-2 DMFT score was mild in 6 patients, moderate in 8 patients and 22 in severe patients.

DISCUSSION

It has been observed that the prevalence of oral diseases is greater in populations of low socioeconomic status. Low socioeconomic status is known to be associated with high risk factors for dental caries. In most epidemiological studies the socioeconomic status and monthly income of the family is used as predictor variables and they are known to have an important role in modulating the health/disease process¹⁰. Low socioeconomic status is associated with low monthly household income and low educational level which lead to less privileged individuals with difficult access to dental services and oral hygiene products and lack in awareness of oral health and oral hygiene measures which result in high frequency and severity of dental caries¹¹.

Socioeconomic status took into account (education status, occupation and income) of the subjects. In short oral problems are very common in lower socioeconomic group and in habiters i.e. ghutka chewers, pan, tobacco eaters, candies eaters as report by Doifode Vetral¹².

Most of these studies acknowledged link between socioeconomic status and DMFT incidence. Low socioeconomic status was linked with increase DMFT incidence that leads to advancement of caries. Same as the poor and low literacy rate people were reported as increase caries susceptibility³.

Poor oral health may affect the performance of an employee in carrying of daily tasks because of absenteeism and poor performance due to deteriorating health status. The present study assessed the oral health status of low income employees of the University of Faisalabad.

And it was found that correlation between age and oral hygiene and correlation between age and DMFT was statistically significant.

Previously a study was conducted in Iran in which the tendencies and of caries patterns in different age groups were observed. The principal purpose of research was to define mean caries involvement (DMFT) for three age groups of 11-14, 14-17, and 17-20 years in an urban Iranian population. Another purpose of research was to examine the connection among caries and applicants' age. Mean DMFT showed an ascending trend in correlation with age (Eslamipour, F et al; 2010). Same upward

trend is observed in our study in DMFT score in correlation with age of employees

CONCLUSION

Based on existing data it was concluded that in older patients DMFT score was high and there was poor satisfaction of oral hygiene status. Oral hygiene measures and oral health education should be reinforced among employees in University of Faisalabad.

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