

ORAL HYGIENE AWARENESS AMONG DIABETIC PATIENTS

¹SABEEN MASOOD,²YOUSUF ALI LAKDAWALA,³SARA ALTAMASH KHAN,⁴SHAUR SARFARAZ

ABSTRACT

The study was carried out to evaluate the awareness among the diabetic patients about oral hygiene maintenance because these patients are immunocompromised and more susceptible to periodontal disease. This study was conducted on patients who came for their dental checkup at Altamash Institute of Dental Medicine, Karachi from 22nd January to 2nd March 2019. The structured questionnaire was filled by 120 diabetic patients. A structured questionnaire was used to ask their name, age, gender, occupation, employment, education and residential area and were recorded in the questionnaire. Complete medical and dental history of every patient was taken. It was further categorized to assess the knowledge and awareness of oral hygiene. The outcomes of the questionnaire were analyzed using SPSS 20.

Keywords: Periodontitis, Diabetes, awareness, patients

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INTRODUCTION

Diabetes is manifested by high blood glucose level due to problem in insulin secretion, insulin action, or both.¹ Diabetes is one of the common spreading chronic disease and World Health Organization has declared it as an epidemic.² Diabetes mellitus results in acute and chronic complications.³ Patients with poor diabetes control and high level of glucose will be at high risk of complications.⁴ Diabetes have several oral manifestations.⁵ Uncontrolled diabetes for an extended period is found to have adverse effects on salivary gland function and lead to xerostomia, sialosis and oral infection including bacterial, viral and fungal.^{6,7} Diabetic patients are more prone to develop periodontal problems.⁸ Many studies carried out in past indicates there is an important relationship between periodontal disease and diabetes.⁹ Oral manifestations associated with diabetes

can be prevented by controlling glucose level and maintaining good oral hygiene.¹⁰ Periodontal disease can be prevented by effective behavior's such as brushing, flossing, and routine dental visits not only have a positive impact on periodontal health but also considered as an integral for diabetic patients' health.^{11,12} The association of diabetes with specific oral problems is of importance in the detection of undiagnosed diabetes and in the clarification of the pathogenesis of various orofacial diseases.¹³ Hence the study was conducted for oral hygiene practices level among diabetics.

METHODOLOGY

The hospital-based cross-sectional survey was carried out during 22nd-January to 2nd-March 2019 on the patients visiting Altamash Dental Hospital's outpatient department (OPD). WHO online sample size calculator was used to determine sample size prior to the data collection. Data was analyzed by using SPSS version 20. A letter from ethical board of the Institute and consent from all the individual participants in the research, was taken.

The questionnaire was divided into two parts. First half of participant's demographic details: name, age, gender, occupation, employment, education and residential area. The second half was on awareness of oral hygiene like teeth cleaning and method, duration, sensitivity, commonest cause of halitosis, bleeding, receding gums and mobile teeth, plaque control methods.

Inclusion criteria of study was diabetic patients and age limit between second to fifth decade of life.

¹ Dr Sabeen Masood, B.D.S, Altamash Institute of Dental Medicine, Res: 52-T, PECHS Block-2, Karachi-75400 Cell: 03142127933 Email: sabeen_786@live.com

² **For correspondence:** Dr Yousuf A. Lakdawala, MBBS(Dow), FRCS(Ireland), RCS(Glasgow), MRCP(Intl.) UK, Professor of General Surgery department in Altamash Institute of Dental Medicine, Res: 92-B, Shabirabad, DBCHS Tipu Sultan Road, Karachi-753500 Email: youlak92@yahoo.com Cell: 0321 2031609

³ Dr Sara Altamash Khan, DMD, MS, Diplomate of American Board of Orthodontics, Assistant Professor of Orthodontics Altamash Institute of Dental Medicine, Cell: 0321-8252508 Email: saraaltamashkhan@yahoo.com

⁴ Dr Shaur Sarfaraz, BDS. MBA. MHPE Scholar, Coordinator Medical Education, Assistant Executive Dean in Altamash Institute of Dental Medicine, Address: SU- 62 Street 3A ASKARI-4, Karachi Cell: 03330200694 Email: dit.drshaur@gmail.com

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Exclusion criteria include patients with systemic diseases other than diabetes and elder people (because our research is focus on younger age and middle age diabetic patients who can maintain their oral hygiene without depending on others), handicapped (disabled cannot perform oral hygiene measure).

RESULTS

A 120 questionnaires were distributed among diabetic patients between 20-50 year of age through random sampling. Out of 120 participants, (77) were female and (43) individuals were male. Every participant was found to brush their teeth however 30% brushed two times every day while 45% chooses to brush once in a day and 25% candidate not brush their teeth daily (Figure1). Another question that was included in the questionnaire was about time, 40% participants were brushing for under one minute, 18% brushed for more than one minute and 42% chooses to brush for one minute. 37% participants changed their toothbrushes every three months,47% change it after every six months and on annually were 16%. Not a single participant utilized dental floss on daily basis.20% did not use dental floss in their everyday oral hygiene up keep. Patients were enquired about the mouthwash, out of which 5% utilized once in a day, 6% used it once in a week,22% used it as prescribed by their dentists and 67% of them never used it. Another question related to dental visits was included in questionnaire,36% patients visits dentist on regular basis and 64% patients visits on need. The results of our study pointed out that limited awareness of oral hygiene among diabetic patients indicates that this topic is unnoticed, and instant actions to be taken.

DISCUSSION

A self-reported questionnaire was used in this present study which is designed to describes the practices and awareness in diabetic patients about oral hygiene. The outcome of study shows that most patients were

in third and fourth decade of their life.

In Pakistan oral hygiene awareness and maintenance standards are very inconsiderate, majority population with poor socio-economic status are mostly affected and most of the people have never visited a dentist. Population will be defended against various complications of systemic diseases originated by poor oral hygiene. In doing so, visiting a dentist should be prioritized.

Around 19 % participants familiar about complications of diabetes in contrast to the study conducted in Mangalore city in which about 22.5% of the population was aware about the complications.¹⁴ Another study concludes that there is a need to provide more information regarding the relation among periodontal disease and diabetes which shows that presence of knowledge was 34.0%.¹⁵ Study suggested that in diabetic patients have higher chances of development of periodontal disease than the healthier ones.¹⁶ In fact, there is higher chances of periodontal disease occurring in diabetics than in non-diabetic patients.¹⁷ Recent study shows that only 30 (10%) were aware about the association between diabetes mellitus and periodontitis and other oral manifestations.¹⁸ When interrogated regarding common causes of bleeding and receding gums, mobile teeth and halitosis. Not much people aware of the common causes.¹⁹

Every participant was found to brush their teeth but out of which 30% brushed twice a day while 45% brushed once in a day and 25% of them did not brushed daily. Similar outcomes were described by numerous researchers who found that 50% participants brushed once in a day, 31% of them brushed two times in a day, and 19% did not brush on a regular basis.²⁰ Our study also showed that diabetics have inadequate knowledge about effects of oral health on general body health. Thus, diabetic patients need sound knowledge about the standing of oral hygiene and awareness.

CONCLUSION

This study conducted on evaluation of awareness levels regarding oral hygiene levels among diabetic patients in Karachi, Pakistan. These limited findings of oral hygiene awareness among diabetic patients indicates that there is utmost need of work to be done on this topic in the near future as diabetes is the most common problem of our population.

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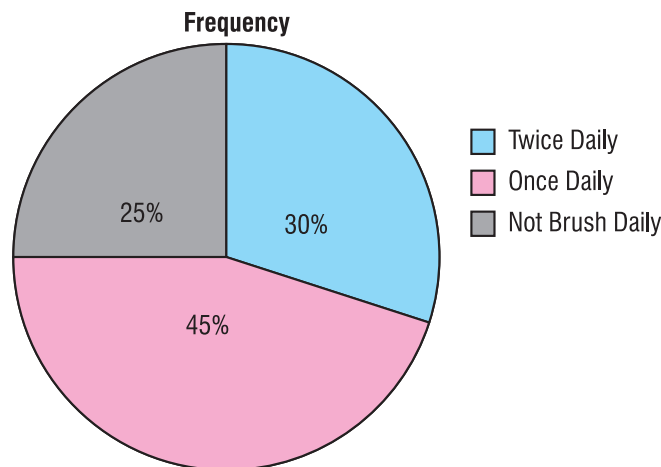


Fig 1: Frequency of toothbrushing

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CONTRIBUTIONS BY AUTHORS

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|------------------------------|---|
| 1 Sabeen Masood: | Supervisor, Topic selection, proof reading. |
| 2 Yousuf A Lakdawala: | Data collection, Discussion, Layout of the article, Collection of references. |
| 3 Sara Altamash Khan: | Statistical analysis, Article writing. |
| 4 Shaur Sarfaraz: | Data collection, Article writing. |