

Awareness of Patients Towards Association of Diabetes and Periodontal Disease



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Background: Diabetes mellitus (DM) is characterized by the body's failure to produce sufficient or efficiently use insulin impacting 12% of the US population. Periodontal disease (PD) and DM have a bidirectional relationship characterized by mutual exacerbation from underlying inflammatory mechanisms. PD affects 47% of American adults (>30 years) causing gum inflammation and/or tissue destruction. Assessing patients' health literacy surrounding PD-DM relationship informs options for increasing quality-of-care for patients.

Methods: An anonymous, validated, 11-question, paper-based survey collecting demographic information as well as knowledge and opinions regarding the PD-DM connection was distributed to adults (18-80 years) in the waiting area of Marshfield Clinic Marshfield Center over 7 days. Study data was summarized and association between variables was analyzed through chi-square and Fisher's exact tests in Excel/SAS.

Results: A 53% (190/365) response rate was achieved for survey completion. Among respondents, 62% were female, 35% had \leq high school diploma, 55% had some college up to a Bachelor's degree and 10% reported advanced degrees. Over half of respondents were aged 61-80 years (57%) followed by, 41-60 years (32%) and 18-40 years (11%). Knowledge surrounding the PD-DM association was reported by 56% of respondents and 19% of total respondents rated their knowledge as very good/excellent. Both questions requiring prior PD-DM knowledge were correctly answered by 80% of respondents. Interest in learning more about the PD-DM relationship was indicated by 40% of respondents. Respondents' perspective on dentists conducting screening for medical conditions demonstrating connection with oral disease was mixed: yes (48%), no (28%), not sure (23%). Self-rated knowledge and willingness to learn about the PD-DM connection were associated with acceptability of screening for medical conditions by the dental provider ($p < 0.05$).

Conclusions: Increasing health literacy surrounding PD-DM relationship may increase willingness to participate in screening and other measures to reduce risk for PD-DM complications. Additional studies are required to confirm findings.