VALIDATION OF SELF-REPORTED ORAL HEALTH MEASURES FOR PREDICTING PERIODONTITIS AMONG ADULT FILIPINOS WITH TYPE 2 DIABETES MELLITUS

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BACKGROUND
Diabetes mellitus is currently being recognized as a global health problem. Adults with diabetes were less likely to have been seen or consulted a dentist than to seek consult with a health care provider for diabetes care. This provides an opportunity for health care providers to screen and educate patients regarding the possible oral complications that might develop. A cheap and easy way of clinical assessment via self-reported oral health questionnaire would be of great use especially in a developing country like the Philippines where there’s limited resources for health care access. This study aims to validate self-reported oral health measures, socio-demographic and medical variables in predicting the presence and severity of periodontitis in Filipino adults with type 2 diabetes mellitus.

METHODOLOGY

CDC-AAP Self-Reported Oral Health Questionnaire
Filipino Version of the Questionnaire
Pilot Testing (N=20)
Revised Filipino Version

Study Overview and Eligibility
Consent and Baseline Profile Self-Reported Oral Health Questionnaire
Dental Examination
Data Analysis

RESULTS

- In general, understanding and responses to all oral health questions were very high and consistent.
- Socio-demographic and medical variables considered to be significantly predictive of serious periodontitis were male sex [OR =2.17], low educational status [OR =2.98], poor glycemic control [OR =2.58], less frequent dental visits [OR =2.77] and teeth loss > 6 [OR =5.02].
- Self reported oral health variables shown to be significantly predictive of serious periodontitis included gum disease –Q1 [OR =8.33], state of gum health –Q2 [OR =0.39], loose teeth –Q3 [OR =63.0], brushing of teeth –Q4 [OR =0.65], use of mouthwash –Q4 [OR =0.69] and poor tooth appearance –Q5 [OR =48.42].

Distribution and Severity of Periodontitis Among Type 2 Diabetics

Multivariate Logistic Regression Analysis and Proposed Scoring of Significant Oral Health Predictors for Serious Periodontitis

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Odds Ratio</th>
<th>p-Value</th>
<th>Proposed Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Education Status</td>
<td>5.02</td>
<td>0.010</td>
<td>+ 3</td>
</tr>
<tr>
<td>Tooth Loss &gt; 6</td>
<td>8.17</td>
<td>0.011</td>
<td>+ 4</td>
</tr>
<tr>
<td>Health of Gums (Q2)</td>
<td>0.56</td>
<td>0.017</td>
<td>- 1 (5)</td>
</tr>
<tr>
<td>Loose Teeth (Q3)</td>
<td>29.56</td>
<td>0.004</td>
<td>+ 7</td>
</tr>
<tr>
<td>Tooth Appearance (Q5)</td>
<td>31.63</td>
<td>0.001</td>
<td>+ 7</td>
</tr>
</tbody>
</table>

CONCLUSION

The use self-reported oral health questions appears to be a potentially useful screening tool for predicting the presence of serious periodontitis among type 2 diabetic patients in a local setting where resources are limited and routine clinical oral examinations are not feasible. This will provide a cost-effective and rapid method of identifying patients who are in need of immediate dental evaluation and would benefit most to a dental referral.