Prosthetic Status among Greek Population Related to Educational Level

Maria Kotanidou DDS¹, Fotoula Nikolopoulou DDS, MD, PhD, MPH², Eleonora Blioumi DDS, PhD³

¹Senior Registrar, General Hospital of Thessalonikī ‘Agios Pavlos’
²Assistant Professor of Dental School, National and Kapodistrian University of Athens
³Senior Registrar General Hospital of Thessalonikī ‘Agios Pavlos’

Abstract: This cross-sectional study was conducted among the Greek population aged 24-84. During this survey period a total of 275 patients were examined. One hundred and ten [110] males and one hundred and sixty five females were taken part in this clinical survey. One hundred and fifteen patients didn’t have and needed prosthetic appliance. Forty five [40,9%] males didn’t have prosthesis and 40 males of them had higher level of education. Only 5 patients were illiterate. A high percentage of males had university education. A higher proportion of subjects with a low educational level [55,88%] were edentulous. The data regarding the educational level of the females and the prosthetic treatment indicated that there was a correlation between higher education and prosthetic status [69%] The female with low education were edentulous [54,76%] Eighteen males were edentulous and 16 females didn’t wear complete dentures.

Key words: Educational level, prosthetic status, complete dentures, edentulous, edentulism

1. Introduction

The proportion of older people continues to grow worldwide, especially in developing countries. Non communicable diseases are fast becoming the leading causes of disability and mortality. Chronic disease and most oral diseases share common risk factors. [1, 2]

Epidemiological studies have shown that subjects of low income and education are more likely to be edentulous than their counterparts of higher income and education. [3] It is evident that loss of teeth is not only associate with impaired chewing efficiency and inadequate nutrition but also with other health problems such as lower extremity dynamic strength, agility and balance function in elderly adults. [4, 5]

It has been demonstrated that several non-disease factors such as attitude, behavior, dental attendance and characteristics of the health care system play an important role in the eventual decision to become edentulous. Replacement of missing teeth has become one of the most important needs for the patients attending clinics to restore esthetics and function. [6]

Oral health is an integral part of general health and socioeconomic status plays a vital role in its determination. Several studies in the past have revealed an association between socioeconomic status [SES] and oral health. [7, 8, 9]

Many treatment modalities are available for replacing a single missing tooth, removable partial denture, fixed partial denture or dental implant. In many cases the cost of the treatment is ahead of oral status and patient preference. Baseline information related to prosthetic status and education will help us to evaluate the patient’s oral health and prosthetic preference. The present study was conducted among the Greek population aged 24-84 years.

2. Materials and Methods

A cross-sectional study was conducted among the Greek population aged 24-84. This study was conducted for three months, and the study sample comprised all the patients examined during that period. Persons with any acute illness and not willing for the examination were excluded from this study. During the stipulated survey period a total of 275 patients were examined. The enrolled patients were first interviewed to obtain general information and socioeconomic variables. This was followed by oral examination. The examiners assessed the dental prosthetic status and treatment needs according to the criteria described in the WHO oral health assessment form1997. [10]

Prosthetic Status
Code 0 No prosthesis
Code 1 One-unit prosthesis
Code 2 Multi –unit prosthesis
Code 3 A combination of one-and/or multi unit prosthesis
Code 4 Complete dentures

The socioeconomic status is widely recognized as an important factor affecting the health condition. Several studies require assessment of the socioeconomic status. The Kuppusmamy’s socioeconomic status scales were extensively used in urban population for assessment of the SES. An online tool is available for real-time updating of the scale. [10]

Table 1: Revised Kuppusmamy’s Socio economic status Scale with Real-time update

<table>
<thead>
<tr>
<th>Education</th>
<th>Score</th>
<th>Occupation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-graduate degree</td>
<td>7</td>
<td>Professional</td>
<td>10</td>
</tr>
<tr>
<td>Graduate-degree</td>
<td>6</td>
<td>Semi-professional</td>
<td>6</td>
</tr>
<tr>
<td>Higher Secondary Certificate</td>
<td>5</td>
<td>Arithmetic Skill jobs</td>
<td>5</td>
</tr>
<tr>
<td>High School Certificate</td>
<td>4</td>
<td>Skilled Worker</td>
<td>4</td>
</tr>
<tr>
<td>Middle School Certificate</td>
<td>3</td>
<td>Semi-Skilled Worker</td>
<td>3</td>
</tr>
<tr>
<td>Less than Middle School Certificate</td>
<td>2</td>
<td>Unskilled Worker</td>
<td>2</td>
</tr>
<tr>
<td>Illiterate</td>
<td>1</td>
<td>Unemployed</td>
<td>1</td>
</tr>
</tbody>
</table>
3. Results
A total of 275 patients were examined, of whom 110 were males and 165 were females. The age range of the study population was from 24 to 85 years with a mean 50, 48 years. Forty-five [40.9%] males didn’t have prosthesis, and 40 males of them had higher level education. Only 5 patients were illiterate. The results are presented in table 2.

![Table 2: Prosthetic status in Greek Population](image)

One-hundred and fifteen patients didn’t have and needed prosthetic appliance. They came to the hospital for fillings. We can see the majority of the patients didn’t need prosthetic treatment.

Table 3: Prosthetic status among Greek population [males] related to educational level

<table>
<thead>
<tr>
<th>Variables</th>
<th>Education</th>
<th>Code 0</th>
<th>Code 1</th>
<th>Code 2</th>
<th>Code 3</th>
<th>Code 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score [7.6]</td>
<td>25 [56.8%]</td>
<td>3 [6.81%]</td>
<td>16 [36.36%]</td>
<td>0</td>
<td>0</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Score [4.5]</td>
<td>15 [46.87%]</td>
<td>4 [12.5%]</td>
<td>2 [6.25%]</td>
<td>2</td>
<td>2</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Score [1,2,3]</td>
<td>5 [14.7%]</td>
<td>0</td>
<td>0</td>
<td>10 [29.41%]</td>
<td>19</td>
<td>55.88%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45 [40.9%]</td>
<td>21</td>
<td>37</td>
<td>12</td>
<td>37</td>
<td>110</td>
<td></td>
</tr>
</tbody>
</table>

The results showed that a high percentage of males had university education [56.8%]. A higher proportion of subjects with a low educational level [55.88%] were edentulous [Table 3]

Table 4: Prosthetic Status among Greek population [females] related to educational level

<table>
<thead>
<tr>
<th>Variables</th>
<th>Education</th>
<th>Code 0</th>
<th>Code 1</th>
<th>Code 2</th>
<th>Code 3</th>
<th>Code 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score [7.6]</td>
<td>38 [69%]</td>
<td>7 [12.72%]</td>
<td>0</td>
<td>0</td>
<td>10 [18.18%]</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Score [4.5]</td>
<td>30 [44%]</td>
<td>7 [10.29%]</td>
<td>2 [2.97%]</td>
<td>18</td>
<td>11</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Score [1,2,3]</td>
<td>20 [47.67%]</td>
<td>10 [23.80%]</td>
<td>16.66%</td>
<td>23</td>
<td>54.76%</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>14</td>
<td>12</td>
<td>25</td>
<td>44</td>
<td>165</td>
<td></td>
</tr>
</tbody>
</table>

The data regarding the educational level of the females and the prosthetic treatment indicated that there was a correlation between higher education and prosthetic status. [69%]. The females with low education were edentulous.[54.76%] [Table 4]

Table 5: Prevalence of edentulous in Greek population

<table>
<thead>
<tr>
<th>Gender</th>
<th>Edentulous Patients wearing CD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males 18 [64.28%]</td>
<td>10 [35.72%]</td>
<td>28</td>
</tr>
<tr>
<td>Females 16 [36.36%]</td>
<td>28 [63.63%]</td>
<td>44</td>
</tr>
<tr>
<td>Total 34</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows that 18 [64.28%] males were edentulous and 16 females [36.36%] didn’t wear complete dentures. Ten [35.72%] males and 28 [63.63%] females wore complete dentures. The majority of the subjects 7 males wanted to construct a new appliance. They had problems with the masticatory function.

4. Discussion
Oral health is important to such an extent that it can hinder a person’s ability to work and concentrate on their daily routine. Although it is not life threatening the loss of teeth or edentulism has a very significant effect on an individual. It has been observed to result in functional, psychological, and social limitations and affects the quality of life and general health of patients. [11, 12]

Partial edentulism depends on various socioeconomic parameters such as family income, educational status, and occupation. It has been observed by various authors that partial edentulism decreases in the employed group and when family monthly income increases. [13, 14, 15]

Nirupama et al showed that lower education group subjects are not much aware about oral health care and the associated treatment options available. [16] Our results indicate that the high education level of patients had good condition of oral health. [Table 3 and Table 4] The prevalence of edentulism was high 56% males and 54.8% females in illiterate groups.

Some investigators referred that people who are educated and employed are more concerned about their aesthetics and opt for dental treatment. [17, 18]

It has been showed that different prosthetic treatment was related to educational level and socioeconomic status.[18] Research work by Barreiro et al revealed that some variables such as age, gender, occupation, marital status influence the prosthetic treatment. [19]

Our results showed that gender influences the prosthetic status. [Table 3, and table 4] It has been showed that the level of education played a role in the choice whether to seek treatment and 83.8 percent of the subjects who were in more than high school level.20]

That means the level of education could affect the patient’s awareness regarding the importance of teeth replacement.

Within limitation of this survey it was concluded that: The education level has affected significantly the different types of prosthetic treatment.

References


[18] Fahad Al-Harbi, Maha E Tantawi ‘ Normative prosthodontic care need ; does it impact the daily life of young Saudis with high level of oral disease? A cross sectional study. BMC Oral Health, 2017; 17[1]: 28 Doi[10.1136] s 12903-017-1418-


