



Prosthetic Treatment Needs among Institutionalized Elderly in Baghdad - Iraq

Dr. Hanan Abdul –Rahman , B.D.S, M.Sc.

Abstract

This study was used to investigate the oral health status and treatment needs in elderly patients having a pattern of chronic general diseases that often result in social disadvantage.

The study sample consisted of seventy patient admitted to the elderly institution. Standardized dental probes and mirrors were used for the clinical examination; questionnaires were taken from elderly patients.

The results of this study indicated that the prosthetic treatment was needed in 45 patient which equal to (64.3%) of total. Relining of the dentures was considered sufficient treatment in about (25%) of the patients weaning dentures, while constructing of new dentures were necessary for four patients.

The dental health service programs for geriatric patients should be improved and carried out in connection with their institution.

Introduction

There is substantial evidence for frequency of the relationship between poor oral health and disadvantaged social status ^(2, 3, 5). Further more, several studies have shown that oral health in the elderly in general is very poor ^(1,3,7) . 64.3% of the sample was clinically judged as needing dental treatment, mainly some form of prosthetic treatment. In many of the elderly patients, there is a number of barriers to obtaining dental care; which include the cost of treatment, fear of the dentist, immobility and the feeling that they should not "bother" the dentist ^(9, 10).

A number of studies have been conducted on the dental status of the elderly, Grabowski and Bertram ⁽¹⁾, HellOe ⁽²⁾ and Borreani ⁽¹⁰⁾ stated that the dental treatment needs as measured by professionally ascertained standards

for exceeded that felt by elderly persons.

Materials and Methods

The study sample consisted of 70 patient admitted to the elderly institution (43 male, 27 female), with their average age is 63 years old, the study sample were selected randomly, i.e. consecutively and in dependent of the oral and general health status.

All participants were examined and inter viewed by the same dentist visiting the departments. The following parameters we assessed in the study group: age, sex, the presence of dentures, alveolar ridge atrophy, palate depth, the partial edentulous spans, and the visits to the dental clinic.

Standardized dental probes and

mirrors were used for the diagnosing of mobile teeth. The presence of dentures and the age of possible dentures were recorded from an objective functional point of view. The dentures were classified as good (no treatment needed), others needed relining or required replacement with a new denture.

Results

The degree of atrophic alveolar ridges was clinically evaluated and primarily "classified according to loss of apicocoronal height as no, moderate, or severe atrophy. However, after the investigation had been completed, it was decided to distinguish only between atrophy present or absent (Table 2). On the basis of the oral health status, a treatment plan was formed for each patient, listing the type of denture treatment.

The objective treatment needs of the 70 institutionalized elderly patients which assessed on the basis of clinical examination where shown in (Table 3).

All percentages in the present study are calculated from the total number of the patients investigated $n = 70$. The distribution of the oral health parameters summarized in table (1) explain that there is a significant difference between males and females (chi-square test, $P < 0.01$).

Table 4 indicates that the percentage of Kennedy class 1 partially edentulous spans was 21.4 %.

Concerning patient attendance to the dental clinic, males make up a significant larger population than females, as shown in (Table 5).

Discussion

A very simple and often used method for describing the oral health status of a population is to give the percentages of dentate and edentulous

persons (1,2,4,5,6).

Some investigators report that in edentulous populations, women make up a significantly larger population than men (3,4) this was not found in the above mentioned study.

The findings of this study revealed a significant increase in the incidence of CL1 partially edentulous patients, CL1 edentulous spans comprised 21.4% of the study sample, this finding is not in agreement with Donald (13).

Older people are increasingly retaining their natural teeth but a high risk of oral disease with resultant impact on their quality of life , the cost of dental treatment , fear of care and perceived availability of dental services emerged to influence significantly dental attendance (10) .

The predominant treatment needs was for prosthetic treatment as listed in table (3). Most of the patients being edentulous with poorly functioning dentures.

Conclusion

The results demonstrate that socioeconomic and behavioral factors are independently associated with the frequency of and reasons for dental visits in this aged population.

It seems reasonable to improve the dental health service programs for geriatric patients. In our opinion, the initial oral health care in such patients with accumulated needs of dental treatment should be carried out in connection with their institution.

References

- 1- Grabowski M, Bertram U. Oral Health status and the need of dental treatment in the elderly Danish population. *Community Dent Oral Epidemiology*, 1975. 3: 108-114.
- 2- HclOc LA. Oral health status and treatment need in a disadvantaged rural population in Norway. *Community Dent . Oral Epidemiology*, 1973, 1: 94-103.

- 3- Bulman JS, Slack GL, Rickard ND and Willcocks AJ, A survey of the dental health and attitudes towards dentistry in two communities part2. dental Data. Br.Dent J. 1968, 124: 549-554.
- 4- Burgess WC. And Beck DJ. Survey of denture wearers in new Zealand. N.Z. Dent J., 1968, 65: 223-232.
- 5- Moller IJ and Beck DJ. How oral surveys were conducted. Int. Dent. J., 1976, 26: 229-366.
- 6- Richard ND, Willcocks AJ, Bulman JS. and Slack GL. A survey of the dental health and attitudes towards dentistry in two communities part 1. Sociological Data. Br. Dent. J., 1965, 118: 119-205.
- 7- Ritchie CH. A report of dental findings in a survey of geriatric patients. 1973, 1: 106-112.
- 8- Lopez R, Baelum V. Factors associated with dental attendance among adolescents in Santiago, chile. BMC oral health, 2007, 10.
- 9- Luzzi L, Spencer AJ. Factors influencing the use of public dental services: An application of the theory of planned behavior. BMC health Serv Res., 2008, 30: 8-93.
- 10- Borreani E, Wright D, Scambler S, GallagherJE. Mnimizing barriers to dental care in olderpeople. BMC oral ,2008 , 26.
- 11- Esan TA, Olusile AO, Akeredolu PA, Esan AO. Socio demographic factors and edentulism. BMC Oral Health, 2004. 22, 4(1): 3.
- 12- Ekelund R. National survey of oral health care in finnish private old people's homes. Community Dent Oral Epidemiol, 1989, 17: 158-61
- 13- Donald A. ,Thomas A.,Galen W.,and Frederick C. Incidence of various classes of removable partial dentures .J.Prosthet Dent. , 1992,67, 664-667.

Table 1.Oral health status among 70 institutionalized elderly patients as revealed by dentition.

Dentition	Patients		Female		Males	
	N	%	N	%	N	%
Totally edentulous	32	45.7%	12	37.5%	20	62.5%
Partially edentulous	38	54.3%	13	34.2%	25	65.8%
Patient with denture	12 C.D	17.1%	3	25%	9	75%
	3 PD	4.3%	2	66.7%	1	33.3%
Totally edentulous without dentures	20	28.6%	9	45%	11	55%
Dentate patients without dentures	35	50%	11	31.5%	24	68.5%

C.D:complete denture. P.D:partial denture.

The age range of the dentures was 3 months to 20 years.

Table 2.Oral health status among 70 institutionalized elderly patients as revealed by alveolar ridge atrophy.

Health of alveolar ridge	Well developed %		Atrophy %	
Totally edentulous	10	14.3%	22	31.4%
Partially edentulous	25	35.7%	13	18.6%
Palate depth	n	%		
Medium	49	70%		
Deep	12	17.1%		
Shallow	9	12.9%		
Total	70			

Table 3. Objective assessment of the need for dental treatment among 70 institutionalized elderly patients.

Patients		
Treatment	n	%
Prosthetics	45	64.3%
New dentures construction	4	5.7%
Relining of dentures	3	4.3%

Table 4. Partial edentulous spans among 70 institutionalized elderly patients.

Patients		
	n	%
CL1	15	21.4%
CL11	13	18.5%
CL111	6	8.5%
CL1V	4	5.7%
Total	38	

(Kennedy classification)

Table 5. Patient attendance and visits to the dental clinic.

Patients sex	Yes		No		Total
	n	%	n	%	
Males	34	48.6%	6	8.6%	40
Females	18	25.7%	12	17.1%	30
Total	52		18		70
	n	%			
Regular	12	17.1%			
Irregular	58	82.9%			
Total	70				