

NEEDS AND DEMANDS FOR DENTAL TREATMENT AMONG SAUDI FEMALE PATIENTS IN THE DENTAL SCHOOL IN RIYADH

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أجريت هذه الدراسة على ٤٠٠ ملف لسيدات سعوديات عولجن في عيادات كلية طب الأسنان بجامعة الملك سعود وذلك من أجل تحديد الشكاوى الرئيسية لديهن ومقارنتها بحاجة المرضى الفعلية للعلاج . أظهرت هذه الدراسة أن هناك ٨٥% من المريضات احتجن إلى التعويضات الثابتة ، ٧٣,٣% احتجن إلى جراحات بسيطة و ٨,٩٠% احتجن لمعالجة اللثة والأربطة المحيطة و ٦٩,٣% احتجن لتعويضات متحركة بينما وجد أن جميع المراجعات احتجن لمعالجة ترميمية وعلاج جذور . وقد اختلفت الشكاوى الرئيسية لديهن عما احتجن إليه من علاج فقد وجد أن الشكاوى الرئيسية لدى ٣٠,٨% من المريضات كانت بسبب الألم و ١٩% كانت طلباً للعلاج الشامل و ١٨% كانت البحث عن التعويضات . كذلك وجد أن ٨% كانت الشكاوى الرئيسية لديهن هي كسر في بعض الأسنان و ٧,٥% مشاكل في اللثة والأربطة المحيطة بالأسنان و ٤,٥% تقوم الأسنان وكانت الشكاوى من نخر في الأسنان هي ٢,٥% .
لقد تبين من البحث أن الشكاوى الرئيسية لدى مرضى الأسنان تختلف بنسب متباينة وكذلك وجد أن هناك اختلاف بين حاجة المريضات للعلاج وشكاوهن الرئيسية .

The aim of this study was to compare the demands of Saudi female patients to the needs of and actual treatment given in a selected Saudi population. Four hundred files, randomly chosen from seven hundred female patients who attended the dental clinics of the College of Dentistry, King Saud University, Riyadh between 1996 and 1998, were studied. Results showed that pain relief was the major demand (30.8%) among the patients. The demand for caries treatment was only from 2.5%, although the need for restorative dental treatment was 100% among patients. Demand for periodontal treatment was from 7.5% but the need for periodontal treatment was for 90.8% (tooth replacement was demanded by 18%). Fixed prosthesis was needed by 85% while 69.3% needed removable prosthesis. This study showed that demands for dental care by patients were much less than their actual needs.

Introduction

Health care delivery, including dental services, in recent times has become subjected to increasing demands from patients. Demand is the expression by a patient or the public of a desire to receive health care related to their perceived needs.¹ In underdeveloped countries, dental care demand might be only for pain relief. It has been stated that a dentist is expected by patients to be a competent diagnostician, a good communicator and a talented craftsman.² Dental profession, therefore, needs to develop tools and methods by which these expectations could be met.

Need for dental care is defined as the quantity of dental treatment which, in the opinion of an expert, should be available over a time period for

people to be certified dentally healthy.¹ An accurate assessment of dental treatment needs is important to public health planners. The method of assessment usually employed has been through clinical examination where clinicians use professional forms to assess needs in any given situation.³ Other methods for evaluating treatment needs include measuring patient's demand for treatment, perceived needs for treatment and objective oral status of the patients.⁴

In industrialized societies, dental needs should be estimated in terms of restoration of diseased teeth to good function form, the replacement of missing teeth, maintenance care for control of early lesions of dental disease as well as preventive and educational measures. This should lower dental disease prevalence.⁵

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Evaluating needs and demands for treatment in the population is probably a difficult task to achieve. Many factors not directly related to the actual disease for which treatment can be offered will interfere, such as cost, culture, equipment, manpower and treatment prognosis.⁶ Consequently, the dental care available depends on the interaction between needs and demands for treatment and the available resources.

Most recent studies on the needs and demands of dental treatment have been performed on specific populations such as the elderly,⁷ the institutionalized, the handicapped,⁸ and refugees.⁹ They have, in general, reported high normative needs in these populations.

The aim of this study was to compare the demand to the need for dental treatment by relating the demand of treatment by the patients to the amount of treatment needed and given to patients.

Materials and Methods

Seven hundred files of female patients who received complete dental treatment at the College of Dentistry, King Saud University, Saudi Arabia from 1996 to 1998, were examined. Four hundred files were selected randomly through a systematic sampling method. Information such as age, chief complaint and type of treatment provided were obtained from the files. The level of education, socio-economic status and socio-cultural background were not measured in this study.

Demands for dental treatment was measured by "chief complaint," which was classified as follows:

1. Fractured tooth
2. Carious lesions
3. Periodontal diseases which included bleeding gingiva, tooth sensitivity, mobility and bad smell
4. Removable or fixed dentures because of missing teeth
5. Orthodontic treatment
6. Pain, swelling and pus discharge
7. Complete dental treatment

The needs for dental treatment were categorized as follows:

1. Periodontal treatment which included motivation, oral hygiene instruction, scaling and deep root planing
2. Restorative treatment either as amalgam restoration, tooth colored restoration or endodontic treatment.
3. Fixed prosthodontics either as single crowns or bridges
4. Removable prosthodontics such as partial denture, complete denture and overdentures
5. Surgical procedures which included simple extractions, impactions and crown lengthening procedures.

The data were entered into an IBM Compaq Presario personal computer and then analyzed using SPSS program. Descriptive statistical analysis was used to analyze data such as frequencies and cross-tabulation.

Results

The ages of the 400 subjects whose files were studied ranged between 17 and 75 years with a mean of 37.5. The relationship between the chief complaints and the different treatment needs is presented in Table 1. Relief of pain was the most frequently reported demand followed by general treatment. The least occurring chief complaint was caries.

Table 1 shows the percentages of patients in each category of demand (that is, chief complaint) and the various treatment needs. Of the 123 patients whose chief complaint was pain, all of them (100%) needed restorations. A hundred and fifteen of them (93.5%) required periodontal treatment. This pattern of restoration and periodontal treatment being the first and second most required treatment needs was also found in the other chief complaint categories presented (Table 1). The least required overall treatment was removable prostheses. This was reflected in each of the chief complaint categories with the exception of the periodontal problem. These percentages presented in Table 1 cannot be compared statistically because a patient may have multiple treatment needs. There was no statistical significant relationship between age and need, between age and demand.

Table 1. The relationship between demands represented by chief complaints and the different treatment needs.*

Chief complaint	Fixed	Periodontal	Restoration	Removable	Surgery	Total
	T	T	T	T	T	
Pain	102 (89.9%)	115 (93.5%)	123 (100%)	87 (70.7%)	73 (59.3%)	123
General Treatment	73 (96.1%)	74 (94.4%)	76 (100%)	58 (76.3%)	70 (92.1%)	76 (19.0%)
Replacement of missing tooth	55 (76.4%)	57 (79.2%)	72 (100%)	64 (88.9%)	50 (69.4%)	72 (18.0%)
Replacement of old treatment	35 (89.7%)	35 (89.7%)	39 (100%)	16 (41.0%)	28 (71.8%)	39 (9.8%)
Broken Tooth	28 (87.5%)	32 (100%)	32 (100%)	15 (46.9%)	30 (93.8%)	32 (8%)
Periodontic Treatment	20 (66.7%)	22 (73.3%)	30 (100%)	25 (83.3%)	22 (73.3%)	30 (7.5%)
Orthodontic Treatment	18 (100%)	18 (100%)	18 (100%)	7 (38.9%)	14 (77.8%)	18 (4.5%)
Caries	9 (90%)	10 (100%)	10 (100%)	5 (50%)	6 (60%)	10 (2.5%)

T = Treated patients

* = One patient received more than one treatment

The distribution of dental treatments performed is presented in Table 2. Treatment needs overlapped. All the patients received restorative treatment, 90.8% received periodontal therapy, 85% were given fixed prostheses, 73.3% received surgical treatment while 69.3% had removable prostheses.

Table 2. The percentage and number of dental treatments (needs) provided.

Treatment	Percentage	n
Restorative	100	400
Periodontal	90.8	363
Fixed Prosthodontics	85	340
Surgery	73.3	293
Removable Prosthodontics	69.3	277

n • Number of dental treatments provided

Discussion

The present study was on a selected group of female patients, therefore, the results may not be strictly comparable to other results. An estimation of dental needs among a population is important in identifying the dental problems, their extent and severity. It may also be used to identify the cause of the problems and why such

problems persist. This information will help in the planning of dental services in the community.

It has been reported that dental needs are influenced by different factors such as age,⁷ race,¹⁰ income,^{11,12} urbanization and education.^{13,14} In the present study, relation between age, need and demand were determined, however, no relation was found between them. This could be explained by the fact that most of the young patients had multiple missing teeth and needed either fixed or removable prostheses. However, in some populations, it has been reported that the higher the education, the more natural teeth are retained in the elderly population.^{13,14} The same report found that gender difference affected both health and disease. Women access dental care differently and react to health promotion in a more positive manner.¹⁵

In this study, the major demand among the subjects was relief of pain (30.8%) and the minor demand was caries treatment (2.5%). Although in underdeveloped countries, demand may exist only for the relief of pain,⁵ the level of education and income of the selected subjects may have influenced the result of the present study which are not in agreement with another study in Saudi Arabia¹⁶ which found that caries

treatment was the major demand followed by demand for general treatment. Demand for replacement of missing teeth in that study¹⁶ was found to be the lowest (8.45%) compared to (18%) in the present study. The differences in the reported results might be due to the sex difference since only females were subjects of the present study. However, the low demand for caries treatment compared to the high need is in agreement with another study which reported that their subjects received more than twice as many restorations as were demanded.¹⁷

Needs for periodontal and restorative treatment was found to be the highest dental needs. This was in agreement with the report of Hoist et al.³ The study showed that half of the tested groups needed one or more fillings; and the number of persons in need of scaling was high compared to the other treatments needed. Another study done in England¹⁹ found that periodontal treatment needs increased with age. However, when periodontal condition in Central Saudi Arabia was studied, it was found that subjects under 25 years had gingival bleeding, calculus and pockets of 6 mm or greater.²⁰

The present study implies that the demand for dental service is much less than the actual need. This might be due to low dental health education reflecting lack of demand for complete dental care or dental check-up among the studied female members of the population.

Further studies on factors influencing dental care demands among Saudis are needed. The dental profession should be responsible for improved dental care awareness among Saudi citizens in order to reduce treatment needs significantly regardless of the demand.

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