

ASSESSMENT OF EMERGENCY AND PRIMARY DENTAL CARE AT KING SAUD UNIVERSITY COLLEGE OF DENTISTRY

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التقييم الدقيق للعناية الصحية ضروري للتقدم المستقبلي وتطوير المؤسسات. وقد تمت دراسة لشكل الخدمات السنية المقدمة في اسكوتلاندا وبينت هذه الدراسة ازدياد في عدد حالات التشخيص والتقييم وأمراض اللثة وانخفاض في عدد حالات القلع. وكذلك أجريت دراسات في أمريكا على مجموعة من الناس قدموا للحصول على معالجة سنية إسعافية وتناولت دراساتهم الشكوى الرئيسية والاختلافات في العمر والجنس. وهناك دراسات أخرى أجريت في سويسرا تناولت أشكال الفقد السني والاختلاف بين الاحتياجات الحقيقية والشخصية للمرضى المستين. ومن الواضح أن الدراسات والتحليل الدقيق لمراكز العناية الصحية السنية تساعد جدا للتخطيط لمستقبل أفضل للخدمات الوقائية والعلاجية للمرضى. وانطلاقاً من هذا التفكير فقد أجريت الدراسة الحالية. وإن الهدف الرئيسي للدراسة الحالية هي المساعدة في التوسع بالعناية السنية والمعالجة في عيادات الطوارئ في كلية طب الأسنان بجامعة الملك سعود في الرياض.

ونتائج الدراسات الحالية قد تثير الاهتمام والمساعدة لتقديم الخدمات الصحية في المراكز الصحية الأخرى. المعالجة السنية الإسعافية في كلية طب الأسنان بجامعة الملك سعود تؤمن مساعدة المريض الذي يحتاج إلى معالجة سنية فورية. المرضى الذين يحتاجون حشوات مؤقتة، معالجة الأقينية، القلع، تفجير الحراجات، الوقاية الفموية، ضبط الأجهزة الصناعية الثابتة والمتحركة، فحص المرضى، إعطاء النصائح الصحية السنية، الخ. ويعتبر كل ذلك عناية صحية أولية. وهذه المعالجة تقدم من قبل طلاب الامتياز الذين أنهوا دراساتهم السنية. وطلاب الامتياز الذكور والإناث يعالجون المرضى في عيادات الطوارئ الموجودة في كلتا الكليتين في الدرعية والملز في الرياض. والمعالجة في الملز تتم من قبل طالبات الامتياز فقط لكلا الجنسين. بالإضافة إلى ذلك فإن المعالجة السنية تتم أيضاً من قبل الاستشاريين في العيادات التخصصية وكذلك من قبل الطلاب وبإشراف الأساتذة. وهذه الدراسة الأحصائية تظهر عدد المرضى الذين تم علاجهم في عيادات الطوارئ والرعاية الأولية بعيادات كلية طب الأسنان بجامعة الملك سعود للسنين ١٩٨٧، ١٩٨٨ م. أوضحت الدراسة بأن العدد الإجمالي للمرضى المعالجين خلال عام ١٩٨٧ م كان ١٧٦٥٣ مريضاً وفي عام ١٩٨٨ م كان ١٦٢٢١ مريضاً.

ثبت في هذا البحث أن العلاج التحفظي للأسنان يمثل الجزء الأعظم من المعالجة، يتلوه الاستشارات، ثم القلع وتصنيف المرضى، ثبت أيضاً أن علاج اللثة والتعويضات أقل بكثير مقارنة بالمشاكل الأخرى للعلاج. تبين الدراسة أنه طراً تحسن ملحوظ على نسبة الأطباء للمرضى في عام ١٩٨٨ م مقارنة بعام ١٩٨٧ م. يمكن الحصول على صورة شاملة للخدمات العلاجية المقدمة بالكلية عن طريق تحليل مكثف لهذه الخدمات في أقسام عيادات الكلية المختلفة وفي عيادات الطلبة والأخصائيين بالإضافة لعيادات الرعاية الأولية والطوارئ.

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A retrospective study of the emergency and primary dental care patients treated at King Saud University College of Dentistry was carried out for the years 1987 and 1988. The total number of patients treated was 17,653 during 1987 and 16,221 during 1988. Restorative treatment constituted the major category followed by consultations, screenings and extractions. Periodontal and prosthetic treatment was much less compared with other categories of dental care. There was an improvement in dentist-to-patient ratio during 1988 as compared to 1987. The overall trend of dental care could be gauged only by a comprehensive analyses of dental treatment at the primary care clinics, students and specialist clinics of the College.

Introduction

Critical evaluation of health care delivery is *sine qua non* for future progress and improvements in an institution. Fytte *et al*¹ studied the pattern of dental care services in Scotland and reported an increase in diagnosis, periodontics and orthodontics cases and a decrease in radical treatment modalities like extractions. Kountz and Lockart² examined an American population seeking emergency dental care and reported their findings on chief complaint, age differences and gender ratio. Another interesting study concerning the dental treatment needs of the elderly in Switzerland by Stack *et al*³, revealed the tooth loss pattern and the variation between actual and subjective needs of the elderly. It is obvious that a retrospective analysis of a dental health care center is really helpful in planning better future prophylactic and therapeutic services to the patients. It was with these thoughts that the present study was undertaken. The primary aim of the present retrospective study was to assess the extent of dental care and the treatment provided at the emergency (ER) and primary dental care (PDC) clinics of the King Saud University College of Dentistry (KSUCD) in Riyadh. The findings of the present study might stimulate interest in assessing the health services provided in other health sectors. Emergency dental care at King Saud University College of Dentistry primarily provides relief to patients requiring immediate dental attention. Individuals who require temporary fillings, initial root canal therapy, extractions, drainage of abscesses, oral prophylaxis, adjustment of removable and fixed prostheses, screening, oral hygiene instructions (OHI), etc., are considered as primary dental care patients. These treatments are provided by interns who have completed their dental undergraduate courses. Both male and female interns treat patients at the emergency clinic

which functions at the two Dental Colleges, one at the Darriyah University Campus (DUC) and the other at the Malaz University campus (MUC) in Riyadh. The latter is a separate all-female campus, yet patients of both genders are treated. Even though dental care and relief is also provided by consultants at the specialist clinics as well as by the undergraduate students who treat patients under the supervision of the faculty, this sector of ER and PDC has been excluded from the present study.

Materials and Methods

The materials collected from the clinic consisted of records of patients treated during 1987 and 1988, both at DUC and MUC. The total number of patients treated under the ER and PDC were 10,863 during 1987 and 10,969 during 1988 at DUC. The corresponding numbers at MUC was 5,790 and 5,252, respectively. As there was no considerable difference between the data from MUC and DUC, the combined data are mostly presented in this report. For better visualization, the annual treatment data was further divided into four quarters in the Gregorian calendar. To simplify the assessment of dental care, the treatment categories were broadly classified into five groups. The restorative group included both temporary and permanent fillings besides initial root canal treatment. The oral surgery group included extractions, incision and drainage of abscesses, etc. Periodontal treatment included oral prophylaxis, root planing and oral hygiene instructions. Treatment under the prosthetic group included repair of ill-fitting dentures and minor adjustments of fixed prostheses. The last treatment category, "others" group, consisted of consultations and screening, suture removal, etc.

Results and Discussion

The yearly treatment report in emergency and

primary dental care clinics during 1987 and 1988 is shown in Figs. 1 and 2. Different treatment procedures carried out every quarter during the above period are also available from these bar diagrams. The percentages of the various treatment categories provided to the patients in emergency and primary dental care clinics are shown in the pie diagrams [Figs. 3, 4]. Excluding the "others" category which consisted of consultations, screenings and suture removal etc, the restorative category in 1987 and 1988 constituted the major category of dental ER and PDC care [Figs. 3, 4]. The second largest category was extractions. The relatively large number of restorative cases treated during the period under review reflects the conservative approach to preserving the teeth of patients reporting to the emergency and primary dental care clinic. The number of patients in the "others" category which includes diagnosis and consultations was consistently very high. Being an academic institution, it is not surprising that large number of these cases are referred to other staff and students' clinics of the College for further management. Chi-square "goodness-of-fit" tests were carried out to determine whether the difference between the various treatment categories [Figs. 3, 4] through the study period (1987 and 1988) was statistically significant. The results were highly significant ($P < .01$) for all treatments.

The other consistent observation was the uniform increase in the total number of patients

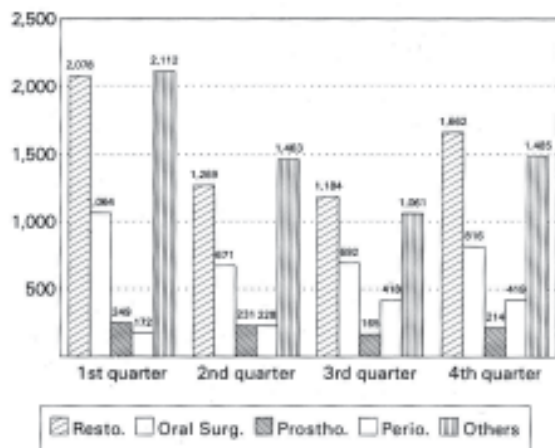


Figure 1. Yearly treatment report of ER and PDC Clinic in KSUCD (1987).

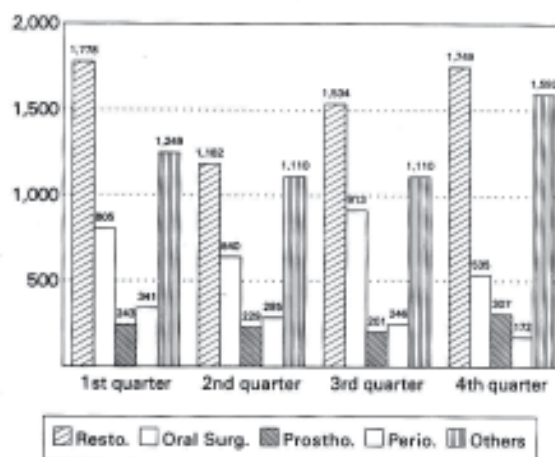


Figure 2. Yearly treatment report of ER and PDC Clinics in KSUCD (1988).

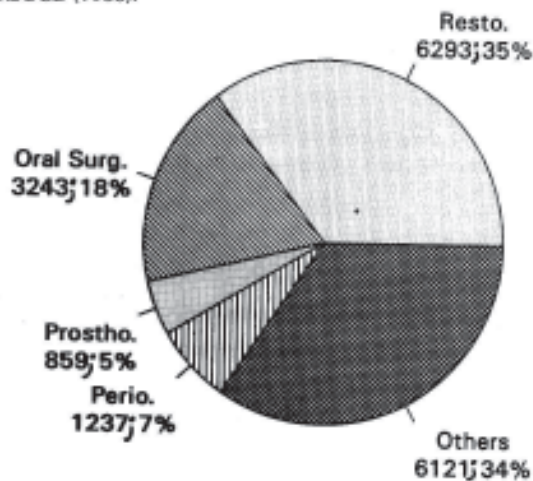


Figure 3. Percentage of treatment categories in KSUCD (1987).

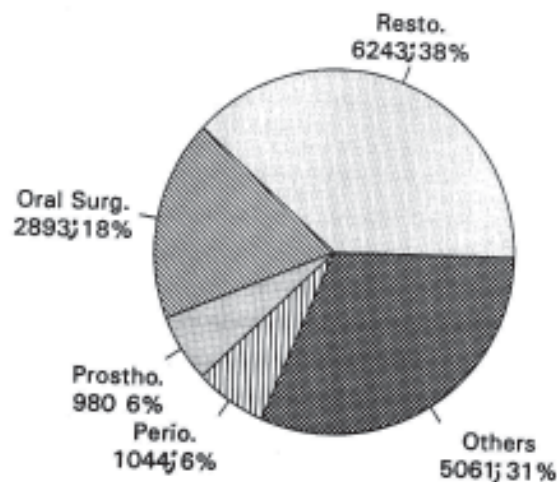


Figure 4. Percentage of treatment categories in KSUCD (1988).

treated in the first and last quarters of the year and a decrease in the second and third quarters (Table 1). Test of difference of two proportionals (the Z test) was carried out to see whether the difference between the number of patients in the first and last quarter of the year and the second and third quarter of the year was statistically significant. The results were highly significant ($Z > 1.98$, $P < .05$). The Z values for 1987 and 1988 were 21.81 and 11.51, respectively. The increase in number of patients during the first quarter (January-March) is possibly due to the reopening of the university after the semester break. Similarly, the increase in the last quarter (October-December) can be attributed to the university reopening after the annual summer vacation when the university staff and their dependents are back in Riyadh. The decrease during the second and third quarters corresponds to the summer period, more particularly to the third quarter of July to September, when the university and other academic institutions are closed for summer vacation. The decrease in the number of patients during the summer quarter is possibly due to the absence of staff and their dependents and also the extremely hot climate when most of the people were out of Riyadh. Interestingly, Al Yahya and Al-Shammery⁴ reported an increase in the number of broken dental appointments at the dental clinic of the school during this same period. This supports the impression that the major population of Riyadh were out of the city and, hence, were unable to keep the appointment.

The average number of dentists working per month in emergency and primary care clinics at DUC was 23 during 1987 and 20.1 in 1988. In MUC, the corresponding numbers were 15 during 1987 and 12 during 1988. The patient-to-dentist ratios in these clinics at DUC in 1987 and 1988 were 43.0 and 45.51, respectively. The corresponding numbers in MUC were 32.72 and 36.47, respectively. The patient-to-dentist ratio increased both in DUC and MUC from 1987 to

1988. The combined data showed an increase in the ratio from 38.93 in 1987 to 42.13 in 1988.

No attempt has been made to determine the gender ratio of patients seeking emergency and primary dental care in this study. Also, analysis of pediatric patients as a separate entity could not be determined due to paucity of information. The present study has revealed patterns of dental care in the primary and emergency dental care clinics. However, a comprehensive picture of total dental care available in the college of Dentistry is possible only after analysis of treatment patterns in the other sectors of the college.

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Table 1. Number of ER/PDC patients during different quarters of the year in KSUCD.

Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
1987	5675	3862	3520	4596	17653
1988	4416	3446	4004	4355	16221

($Z > 1.98$, $P < .05$)