Emergency visits at a paedodontic clinic in Tanzania

F.K. Kahabuka and I.E. Mwangosi

Faculty of Dentistry, Muhimbili University College of Health sciences, P.O. Box 650014, Dar es Salaam, Tanzania

Abstract

In Tanzania, most medical and dental treatment is offered to patients on demand without prior appointment. Consequently, routine dental treatment is dominated by tooth extraction. The aim of this study was to establish causes of 'emergency visits', at the paedodontic clinic in Dar es Salaam, Tanzania. The study was carried out between December 1993 and February 1994. All the patients who visited the dental clinic on emergency basis were included in the study. Special forms were distributed to four dentists to record patients' particulars, chief complaints, and provisional diagnosis. Fifty nine emergency patients attended a paedodontic clinic during the study period. The leading cause of the emergency visits was trauma (49%), followed by infections (24%) and tumours (17%). Further investigation on this problem for longer periods will be valuable before proposing definite preventive measures.

Introduction

In Tanzania, most medical and dental treatment is offered to patients on demand without prior appointment. Majority of dental patients are not aware of various treatment opportunities and therefore visit dental clinics when in pain and sometimes with facial swellings. Often, these patients attend in overwhelming numbers especially during morning hours. At the same time, the dental professionals are faced with frequent shortage of dental materials and breakdown of equipments. They have insufficient time to educate and motivate the patients. Consequently, routine dental treatment is dominated by tooth extraction as a last resort. Previous studies conducted at adults and children dental clinics, (1-2) reported that caries related problems were the major causes of emergency visits at the rate of 92%. A study conducted in Tanzania also among adults and children (3) reported the causes of emergency visits to be cut wounds (38.3%), facial bone fractures (20.2%), bleeding socket (20.2%), infections (5.3%), tooth injuries (5.3%), TMJ dislocation ((4.3%), tumours (3.2%) and other cuses (3.2%). The primary etiological factor for the majority of emergency patients at children's hospital was reported by Majewski et al (4), Zeng et al (5), Battenhouse et al (6) and Fleming et al (7) to be trauma (62%, 60% 46% and 39%, respectively). It appears that there is a tendency for caries related problems to be a principal cause of emergency visits at general dental clinics (1-2), and trauma a major cause of emergency visits at children's hospitals (4-6). Since the causes of emergency cases seen at the children's dental clinic in Tanzania are not known, this study was carried out to establish them.

Materials and methods

The study was carried out between December 1993 and February 1994 at Muhimbili Medical Centre (M.M.C.), Dar es Salaam, Tanzania. At that time Dar es Salaam region had five government and several private dental clinics serving a population of about 2.3 million people. M.M.C. was selected in this study because it is the only place running a paedodontic clinic in Dar es Salaam. Paediatric patients at this clinic include all children up to twelve years of age and school children up to eighteen years. At this clinic, the morning hours are used to treat patients per demand while the afternoon sessions are reserved for patients with appointment, for example, those requiring conservation or orthodontic intervention. Besides these patients, others come on emergency basis. It may be during late mornings, in the afternoon, after working hours or week-ends. Thus, "Emergency visits" refers to all visits besides the morning routines and those with appointments.

Table 1: Age and sex distribution of the study group

Age (yrs)	Sex		Total	
	M	F	n	%
0 - 6	18	14	32	54.24
6 - 12	8	8	16	27.12
12 - 17	7	4	11	18.64
Total	33	26	59	100.00

The sample size was not pre- determined because this study was designed as an explorative investigation. All patients who visited the

paedodontic clinic on emergency basis were included in the study. Special forms designed for this study were distributed to four dentists who were on duty roster. The dentists were requested to record patients' particulars and provisional diagnosis whenever they attended a child patient.

Each dentist diagnosed the case according to his/her own perspective. The information collected was analysed using a pocket calculator. Statistical tests for diferences were not done due to relatively small numbers in different cells in the table.

Results

A total of fifty nine emergency patients attended a paedodontic clinic during a period of three months. Their age and sex distribution is shown in Table 1.

More than 50% of the patients were in the age group of 0-6 years. There were more boys than girls in the ratio 1.3:1. The visits of patients were due to trauma episodes (49%), infections (24%) and tumours (17%), (table 2). There were more boys with trauma and tumours than girls.

Of the patients with trauma and infections, 22% had soft tissues injuries, 20% injuries to the teeth, and 7% had both injuries, whereas patients with dental abscess constituted 13.6% (table 3).

Discussion

All four dentists recorded diagnoses of patients according to their own perspective. No follow-up was made to countercheck confirmed diagnoses, the fact that may affect the reliability of the data.

Table 2: Causes of emergency visits according to sex

Sex	Trauma		Infections		Tumours		Others	
	No.	%	No.	%	No.	%	No.	%
M	16	27	7	12	7	12	3	5
F	13	22	7	12	3	5	3	5
Total	29	49	14	24	10	17	6	10

Table 3: Distribution of trauma and infections

Type of injury	n	%
traumatic		
Soft tissue injuries	13	22.0
Injury to the teeth	12	20.0
Both injuries	4	6.8
Infections		
Dental abscess	8	13.6
Infectedsocket	2	3.4
Cellulitis	1	1.7
Others	3	3.7

Although it is unlikely for a dentist to designate a wrong trauma diagnosis, infections and tumours may be misdiagnosed. The study period of three months gave a chance to attend to only a few patients, thus the results obtained may not be representative for the whole Dar es Salaam population.

Despite the above limitations, the results of this study give a preliminary overview of emergency cases attended at the clinic. More than 50% of all patients were under six years of age. This may be attributed by the fact that most children of this age do not go to school and play on their own without proper care.

Slightly more boys than girls were seen in this study particulary in the age group 12-17 years. This gender difference was also notted among patients with trauma and those with tumours. The sex difference in trauma patients could be due to the more aggresive activities of boys than girls (8) while no explanation has been suggested for the difference in relation to tumours.

The leading cause of emergency visit was trauma. This is in accord with previous findings (4-6).

When causes of dental trauma are established, therewith preventive actions can be worked out. For example, mandatory use of oralfacial protectors during some organised sports, use of integral motorcycle helmets, seat belts, special seats for young children, careful monitoring of occlusal development and timely orthodontic intervention (9-11).

About 14% of the study population had dental abscesses despite an outstanding number of patients with toothache due to dental caries who demand treatment at the clinic during morning hours. In attempting to improve this situation, information on available treatment possibilities for various dental diseases should be made public .

The common type of tumour seen in children at this clinic was Burkitt's lymphoma. Patients with this problem are mainly those referred from up country hospitals and therefore they are not emergency cases.

Conclusion

It can be concluded that dental trauma is one of the leading causes of emergency visits to the paedodontic clinic at M.M.C. in Tanzania. However, detailed investigation on this problem and for longer periods will be valuable before proposing definite preventive measures.

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