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Knowledge, Attitude and Practice Regarding Tooth Loss Among Adult Patients in Quetta, Balochistan

Mujeeb-ur-Rehman Baloch, Iqbal Ahmed Lehri, Hammal Khan Naseer Baloch and Nasrullah Mengal
Preventive & Public Health Dentistry Department, Dental Section, Bolan Medical College, Quetta.

ABSTARCT

Objective: To assess the relationship between KAP of patients about dental treatment and tooth extraction status in tooth extraction and non-extraction case. **Design:** Cross sectional study. **Place and duration of study:** Study was carried out at out patient department Sandeman teaching Hospital Quetta from January to February 1999. **Subject and Methods**: The source of the population were the patients aged 25-65 years attending out patient department at Sandeman teaching Hospital Quetta, The non-probability sampling was used, a total 205subjects were included in the study. Descriptive statistics, Chi-Square test and mean t-test was used. The behavior of the patients was determined by a questionnaire. **Result:** There was 205 patients, among them 134 were tooth extracted cases and 71 were non-tooth extracted. Age was 25-65, and mean age was 37.38 ± 11.09. Male were 63.9 percent and 36.1 percent were female. The K score is higher in non-extraction cases (mean 2.90±1.87) as compare to extraction case (mean 1.81±1.5), (p=.001).The mean of A score is higher in non-extraction cases (mean 21.69±6.1)compare to extracted cases (0.89±0.82), (p=.001). The mean of P score is higher in non-extraction cases (1.59±1.112) than extraction cases (0.89±0.82), (p=0.001). As a whole the KAP of non-extracted cases (mean 26.1±8.22) is better than extracted cases (mean 19.44±6.64), (p=.001). The proportion of extracted group has low KAP score, (p = .001). **Conclusion:** The findings suggested that the extracted cases were less educated, having low KAP and less number of teeth present in the oral cavity. In this regard preventive programs are to be initiated to change the patient perception towards dental treatment.

Key Words = KAP, Tooth extraction, Quetta.

INTRODUCTION

Partial tooth loss and edentulism is still alarming problem in developing and underdevelopment countries. Due to increase prevalence of tooth loss and edentulisum, the eating problems occurred. Eating is most important function of teeth. It significantly affects the biological and social activates and contribute enormously to individual well being. Locker and Grushks[1] found that 11% of a population sample changed some aspect of their diet in response to dental pain. Among elderly who has high rates of edentulism and associated medical problems makes them particularly vulnerable.

The study found that section of population, around on third have experience some difficulties chewing foods. Among elderly denture wearers this may rise to almost 70 percent (1987). Tooth loss has multifactorial etiology, it has disease related[2-10], behavior and attitude related[9,11-19] and or there interaction.

Baelum et al. suggested that in addition to the severity of disease, the tooth loss observed in these studies could therefore also reflect the attitude of the dentist or patients towards treatment[9]. Davidson et al. demonstrated that the presence or absence of natural teeth significantly effects the oral behaviors[14]. The characteristics of older population with dentate and without were studied by Gregg et al. the purpose of the study was to compare the socioeconomic, attitudinal and behavioral characteristic of persons who have served into older

age with an intact or nearly intact dentition with those who have not[16]. The results suggest that the persons with tooth loss had significantly less positive attitudes towards dentist and dental care.

Incidence data on tooth loss from rural Lowanes[17] Michigan residents[18] and subjects participating in a randomized trial of dental insurance[6]. Suggests that disease related factors for example caries, periodontal attachment loss, and trauma could not adequately predict tooth loss, and suggest that social, attitudinal and behavioral factors likely have significant impacts. However, little research has been conducted regarding the attitudes towards dental care of persons varying amount of tooth loss. Kiyak[19] studies about dental beliefs, behaviors and health status among pacific Asian and Caucasians, described that Asian respondents more often indicated they did not know the cause or out comes of dental disease. It was also interesting that Asians felt there was little one could do about dental problems; they do not explain why teeth become loose and fall out. They believe that is due to in age and nothing could be done to avoid it: In Bwmea et al study, the results showed that alternatively the belief and attitude of the patients may have play an important role in the tooth extraction, as suggested by Todd and Whit Worth, some evidence for this found in Bounea's present study, in 43% of the cases dentists gave non-disease reasons for total tooth extraction for example "Patients not motivated" Patients not interested" finical problems[5].

PATIENT AND METHODS

The study was cross sectional; and non-probability sampling was used. The study was performed at Sandeman Provincial Hospital Quetta, which is only teaching Hospital of the province and services the patient of whole province as well as patients from Afghanistan and Iran.

Study population

The source of population were the patients aged 25-65 year attending out-patient department of the Hospital during January to February 1999.

Inclusion criteria

All patients aged 25-65 years old attending the out-patient department, during the period.

Exclusion criteria

Patient who do not agree to participate in this study and patient those have any systemic disease.

The exposure variable of the interest was knowledge, attitude and practice of the patients and it was determined by a questionnaire (face to face interview).

Data collection

All the dental patients aged 25-65 years during January –February 1999 were asked to participation in this study. Only those who were willing to participate were included in the study, the response rate was 95%. The interview was conducted at out patient department, Sandeman Provincial Hospital Quetta, The interview was face to face and was performed by first author. In interview the question about knowledge, previous experience and attitude towards the treatment were asked. There were twenty questions and duration was approximately fifteen minutes. A total of 205 were participated in the study.

Data analysis

Data was coded and entered by a trained dentist. Total 205 subjects were included in the analysis, descriptive statistics was used to describe the socio-demographic characters, clinical examination than extraction and non-extraction cases were compare with the socio-demographic characters, clinical examination and KAP. Difference between tooth extraction and non-extraction cases was examined with regard to KAP of patients using Chi-square test and to compare the mean t-test was used.

RESULT

There were 205 patients as study sample. Among them 134 were extracted cases and 71 were non-extracted cases. They were 25-65 years old and the mean age was 37.38 ±11.09. There were 63.9% male and 36.1% female. The percentage of education was 55.1 with less then 5 years of schooling and 44.9% with more than 5 year of schooling. The mean of number of missing teeth

was 4.5±6.39. There was no difference between urban and rural population who had received dental treatment, 51.7%and 48.3% respectively. More then half of the patients (52.7%), have their earning less then Rs. 3000/- per month. The general characteristics of patients are presented in Table 1.

As shown in Table 2, the age of extraction cases (n=134) is higher then non-extraction cases. The mean of age in extraction cases is 39.42±11.68 and 33.55±8.75 in non-extraction cases. The difference in age is statistically significant. (p=.001)

Table 1: General characteristics of patients.

Age (Mean± SD)	37.39±11.09
Education (percentage)	
< 5 years	55.1%
> 5 years	44.9%
Sex	
Male	63.9%
Female	36.1%
No of teeth present (Mean± SD)	27.49±6.38
P score (Mean± SD)	1.13± .99
(Min-Mix)	(0-4)
A score (Mean± SD)	18.42 ±5.98
(Min-Mix)	(9-33)
K score (Mean± SD)	2.19 ±1.79
(Min-Mix)	(0-6)
KAP score (Mean± SD)	21.74 ±7.87
(Min-Mix)	(9-43)

Table 2: General characteristics among tooth extraction and non-extraction cases in Sandeman provincial Hospital Quetta. (n=205).

Variable	Extraction cases (n=134)	Non-extraction cases (n=71)	P value
Age (Mean±SD)	39.42±11.68	33.55±8.75	.001
Sex: Male (Percentage)	63%	49%	.619**
Urban (Percentage)	53%	49%	.615**
No. of missing teeth (Mean±SD)	5.59±7.01	2.45±4.36	.001*
Education <5 years (percentage)	66%	35%	.001*

* t-test (unequal variances); **Chi-square test

In extraction cases the mean of number of tooth loss in oral cavity is higher 5.59±7.01 as compare non-extraction cases, 2.45±4.36. It is statistically significant (p=.001).

The education level of the extraction cases is lower (66%), having <5 years of schooling as compared to non-extraction cases (35%). It is statistically significant (p=.001).

However there is not statistically significant for gender and place of residence.

As shown in Table 3, the K score is higher then non-extraction cases (mean 2.90±1.87) as compared to extraction cases mean (1.81±1.5) and it is statistically significant. (p=.001)

Table 3: KAP score of patients among tooth extraction and non-extraction cases in Sandeman provincial Hospital Quetta. (n=205)

Variable (Mean±SD)	Extraction cases (n=134)	Non-extraction cases (n=71)	P-Value
K score	1.81±1.50	2.90±1.87	.001*
A score	16.73±5.19	21.69±6.1	.001*
P score	.89±.82	1.59±1.112	.001*
KAP score	19.44±6.64	26.1±8.22	.001*

*t-test (unequal variance)

The mean of A score in non-extraction cases is higher (21.69±6.1) then extraction cases (16.73±5.19). It statistically significant (p=.001).

The mean of P score in non extraction cases is higher (1.59±1.12) than non-extraction cases (.89±.82). As whole the KAP of non-extraction cases (mean 26.1±8.22) is better than extraction cases (mean 19.44±6.64) and that is also statistically significant (p=.001).

Knowledge, attitude and practice are grouped in KAP and the score lower or equal to mean is considered low and the score higher than mean is considered high score. The proportion of extraction group has low KAP (76%). It is statistically significant (p=.001) as shown in Table 4.

The patients with low KAP have 4.9 times more likely to have their teeth extracted as compared to those with high KAP score and it is statistically significant (p=.001).

As shown in Table 5, the proportion of patients with bad pervious experience of treatment are higher in extraction cases (70%) as compare to non-extraction cases (48%) and it is statistically significant (p=.002).

The proportion of patients who perceived that extraction is the only treatment are also higher in extraction cases (74%) than non-extraction cases (37%) and it is statistically significant (p=.001).

Table 4: Comparison of KAP of patients among tooth extraction and non-extraction cases in Sandeman provincial Hospital Quetta. (n=205)

KAP of patients	Low
Extraction cases (%)	76%
Non-extraction cases (%)	39%
OR (95% CI)	4.895 (2.63-9.09)
P-value	.001

Table 5: Patients perception towards dental treatment in Sandeman provincial Hospital Quetta. (n=205)

Variable	Extraction cases (%)	Non-extraction cases (%)	P-Value*
Bad previous experience	70	48	.002
No time of treatment	51	52	.852
No money for treatment	81	73	.179
No other treatment	74	37	.001

*Chi-square test

DISCUSSION

This study showed that the extraction cases were older had less number of teeth present in oral cavity and education as compare to non-extraction cases. Moreover there is no difference among gender between extraction and non-extraction cases. Burt et al.[11] also suggested that the overall pattern of the tooth retention for men and women is same.

However this study showed that there is no difference between urban and rural population and this is not difference between urban and rural population and this is not agreed with Luan's[10] findings. It may be due to different characteristics of the patients and place of study such as teaching hospital in present study might cause.

Researcher[14,17] demonstrated that the presence or absence of natural teeth significantly effects the oral health behaviors. The patients come for extraction in the hospital have less knowledge attitude and practice (KAP) as compare to the patients who came for the other treatments and findings in the present study agreed with the previous findings, but that is not agreed with Hauge Jordan O's findings[20].

Patients and dentists perception plays an important role towards tooth loss. Akiysk's(19) study about dental beliefs, behaviors and health status among Pacific Asians and Caucasians describe that Asian felt that there was little one could do about dental problems. In the present study, the patient who thinks that the extraction is only treatment are also statistically significantly higher in extraction cases (79.2%) as compare to the non-extraction cases (20.8%). The patients with bad previous experience of treatment are also more in extraction cases (73.4%) As compare to non-extraction cases (26.6%).

Most of the patients extract their tooth due to their belief and improper curative treatment in past. Boumeas's[5] study showed that in 43% of the cases dentist gave non-disease reason for total tooth extraction e.g. "Patients not motivated" "patients are not interested" "financial problems".

Limitation of the study

As it was a hospital based cross-sectional study, it had limited generalize ability to the population due to the patients and type of the different characteristics of the hospital. Also selection bias may induce in the study because the study was conducted in winter season, which means that patients might come for treatment for emergency treatment or appointment.

CONCLUSION

The findings suggest that oral health education and promotion is needed in this community. As results show that majority of the patients think that extraction is the only treatment. Further, as many of the patients have bad previous treatment experience, although patients not specify that from where they were received treatment. It is also need to improve the quality of the dental care services in the hospital.

In this regard preventive and promotive programmes are highly recommended to be initiated

in community to change the patients belies regarding tooth extraction.

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The Authors:

Mujeeb-ur-rehman Baloch
Assistant Professor and Head
Preventive & Public Health Dentistry Department,
Dental Section, Bolan Medical College,
Quetta.