

## EMOTIONAL EFFECTS OF TOOTH LOSS IN PARTIALLY DENTATE PATIENTS PRESENTING AT TERTIARY CARE HOSPITAL OF ISLAMABAD

<sup>1</sup>RIDA ANJUM, <sup>2</sup>SUNIA GUL, <sup>3</sup>MUHAMMAD AAMIR GHAFOOR CHAUDHARY, <sup>4</sup>HIRA RIAZ

### ABSTRACT

*The aim was to find out the emotional effects of tooth loss in partially dentate patients presenting to the Department of Prosthodontics at Islamic International Dental Hospital, Islamabad. It was a cross-sectional study. A questionnaire was filled by 100 partially dentate patients. Data was analyzed using SPSS version 13. The study showed that thirty nine percent (39%) of the patients were relieved after tooth loss. Fifty five percent (55%) of patients had no difficulty in accepting tooth loss. Sixty eight percent (68%) of all patients felt sad after losing their teeth. Fifty eight percent (58%) lost their anterior teeth in which fifty nine percent (59%) felt embarrassed in discussing their tooth loss ( $P$  value=0.025). Thirty two percent (32%) of patients felt less confident. These patients also had difficulty in accepting tooth loss ( $P$  value=0.000). Forty two percent (42%) of patients was unprepared for the emotional effects of tooth loss. Tooth loss affected emotions as most of our patients were prepared for the tooth loss but still they had difficulty in accepting tooth loss. They felt sad and handicapped. Patients were also not relieved after their tooth loss.*

**Key words:** Emotional effects, Partially dentate, Tooth loss

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### INTRODUCTION

Teeth are among the most visible part of the body which affect facial esthetics, phonetics and even someone's personality and self esteem. Teeth are also main component in chewing and speaking and swallowing. Healthy and beautiful teeth make a person feel self confident when he is speaking, smiling or laughing or eating in front of others people in any situation.

Whenever a part of body is lost, it is not only taken as a serious event of life<sup>1</sup> but also it affects a person emotionally as well as psychologically. Such a loss makes

a person dependent, gives him a feeling of being helpless, affecting his social performance and confidence to perform certain functions.<sup>2</sup> All these emotional effects are as much related to tooth loss as they are related to loss of other parts of body.<sup>3,4</sup> Tooth loss not only causes facial disfigurement<sup>6</sup> but also causes the functional disability.<sup>2,4</sup>

Some patients consider their teeth loss as effect of aging<sup>5</sup> or as a will of God<sup>2</sup> while most of patients are usually unprepared for the effects of loss of teeth have on their lives.<sup>9</sup> Emotional effects of teeth loss include feelings like relieved from pain, depression, resignation, feeling of sadness, anger, loss of self confidence, sometry to keep tooth loss secret, some people consider their tooth loss as losing a part of body making them handicapped.<sup>6</sup> There are many studies regarding psychological and emotional effects of loss of body structures like hands, leg and eye etc. and number of studies discussing adverse effects of tooth loss but there are very limited studies regarding psychological and emotional effects of tooth loss on patient's life. In a study conducted in India reports that emotional effects of teeth loss is variable from patient to patient with a range from mild to severe.<sup>2</sup> This study reports that partially edentulous patient were more embarrassed

<sup>1</sup> **Corresponding Author:** Rida Anjum, BDS, FCPS-II Resident, Department of Prosthodontics, Islamic International Dental Hospital, Riphah International University, Islamabad House: 498, Block CC, Sector D, Near Rainbow Cash & Carry Store, Bahria Town, Lahore  
Cell: 0321-8578979 Email: dr.ridaanjum@gmail.com

<sup>2</sup> Sunia Gul, BDS, FCPS-II Resident, FCPS-II Resident, Department of Prosthodontics, Islamic International Dental Hospital, Riphah International University, Islamabad

<sup>3</sup> Muhammad Aamir Ghafoor Chaudhary, BDS, FCPS, Assistant Professor, Department of Prosthodontics, Islamic International Dental Hospital, Riphah International University, Islamabad

<sup>4</sup> Hira Riaz, BDS, Senior Registrar, Department of Prosthodontics, Islamic International Dental Hospital, Riphah International University, Islamabad

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in discussing about their tooth loss while in a study by Fiske et al<sup>3</sup>, he concluded that elderly people depicted little embarrassment and accepted their tooth loss as part of their aging process.

Studies conducted in the western world (Caucasian population) acknowledge about lists of emotional effects after tooth extraction<sup>6</sup>. As there is no study conducted in our environment so our objective is to find out the emotional effects of tooth loss in present study groups.

## METHODOLOGY

Before initiation of study, an approval was taken from ethical committee of hospital. The study design was cross sectional. Patients, who matched the inclusion criteria, were included in the study.

### *Inclusion Criteria*

- Male and female who lost their teeth because of any reason like trauma, endodontic infection, and carious lesion.
- Male and female with single or multiple teeth missing.
- Must be of the age of 25 years or above.

### *Exclusion Criteria*

- Patients with the extraction of wisdom teeth.
- Patients who have got their teeth extracted because of orthodontic treatment.
- Patients who lost their teeth because of maxillectomy or mandibulectomy.
- Patients with congenital diseases, communication difficulties, cognitive impairment.
- Male and female with all teeth missing or with single completely edentulous arch.
- Patients who were unwilling to participate.

A questionnaire was developed using the data obtained from previous studies<sup>1,6,7</sup>. It had two sections comprising total nineteen questions regarding emotional effects and attitudes towards tooth loss. Questionnaire was in both English and Urdu languages but it was filled by explaining the questionnaire to illiterate patients in his/her native language.

The procedure of filling up the questionnaire was bit different from most of the studies but similar to study conducted by Akinboboye et al<sup>8</sup>. The study was conducted in hospital environment where two well trained investigators filled up the questionnaires by asking questions while in previous studies i.e. study conducted by Fiske et al<sup>1</sup>, the questionnaires were mailed to patients so they had opportunity of filling up the questionnaire at

their home in comfortable environment. In our study, candidates presenting to Department of Prosthodontics, Islamic International Dental Hospital, were selected according to the inclusion and exclusion criteria written above. Questionnaire was filled during the course of a candidate's treatment after explaining the purpose of study and taking consent. Candidates who did not give consent were excluded from the study.

A total of 100 questionnaires were completed. The gathered data was analyzed by SPSS version 23. Wherever significant correlations were expected between specific variables, Chi-square test was applied to find out the significance. P values, less than 0.05 were considered statistically significant.

## RESULTS

One hundred questionnaires were filled of whom 50 were of males and 50 were of females. 4 of the participants were aged between 75 and 100, 19 aged between 51 and 75 and 77 aged between 25 and 50. 45 participants were partially affording (paying for the work by fresh graduates), 48 participants were fully affording (paying for the work by post graduate residents and faculty members) while 7 were non-affording (getting their work done free of cost by under graduates). 8 participants were edentulous from 3 to 5 years, 33 were from more than 5 years, 30 were from less than 1 year and 29 were from 1 to 3 years. Results according to questions were as follows

## DISCUSSION

The study was based on previous qualitative studies.<sup>3,8,9</sup> Results of this study showed that 39% patients who were relieved by their teeth loss most of them (48%) had no difficulty in accepting their teeth loss similar to the results of study by Amit Vinayak Naik et al.<sup>10</sup> Most of the females (48%) felt handicapped as compared to males (36%). In our sample size of 100 patients, there were total 152 Upper/Lower anterior and posterior segments. A very interesting result which we found out that in patients who had lost just upper posteriors, 50% felt handicapped as compared to 25% of who lost just lower posteriors. We belong to a culture in which majority is emotionally very sensitive and going through financial issue so most of the patients (63%) felt sad after tooth loss this is contrary to the results shown in study by Naik et al.<sup>10</sup>

The different patterns of missing teeth influence the emotions and attitudes of patients differently.<sup>14,15</sup> In this study most of the missing teeth were from lower posteriors and upper posteriors segments similar to the studies by Akinboboye et al<sup>8</sup>, 2016 and Oginni et al<sup>12</sup>, 2005. Total 55% patients had difficulty in accepting tooth loss as compared to 49% patients in study by Fisk et al<sup>11</sup> and 23% patients in study by Naik et al.<sup>10</sup> Out of

TABLE 1: PERCENTAGE DISTRIBUTION OF RESPONSES TO QUESTIONS REGARDING EMOTIONAL EFFECTS OF TOOTH LOSS

Questions	n= 100			Total
	Yes	No	Don't Know	
1. Did you feel "relieved"?	39	60	1	100
2. Were you "depressed"?	31	68	1	100
3. Did you feel "resigned"?	24	76	0	100
4. Were you "sad/gloomy"?	63	37	1	100
5. Were you "angry"?	32	68	0	100
6. Did you feel "handicapped"?	42	58	0	100
7. Did you feel "that you are getting old"?	31	67	2	100
8. Were you "unconcerned"?	26	73	1	100

TABLE 2: PERCENTAGE DISTRIBUTIONS OF RESPONSES TO QUESTIONS REGARDING ATTITUDES TOWARDS TOOTH LOSS

Questions	n= 100			Total
	Yes	No	Don't Know	
9. Did you find it "difficult to accept" losing your teeth?	55	44	1	100
10. Do you "feel embarrassed" discussing your tooth loss?	38	61	1	100
11. Did losing your teeth "affect your self-confidence"?	32	6	53	100
12. Do you think that the "shape of your face" has been changed after your tooth loss?	33	66	1	100
13. Do you think your "overall appearance, looks and self image" has been affected after tooth loss?	36	63	1	100
14. Do you feel "prepared for the effect" that the loss of your teeth had on you?	56	42	2	100
15. Had you "discussed your tooth loss" with other like friends and family?	71	29	0	100
16. Did you keep your tooth loss "secret to others" or try to keep it secret?	26	72	2	100
17. Did your spouse or relatives "shows concern" about your tooth loss?	68	31	1	100
18. Would you like to have your "teeth replaced"?	88	12	0	100
19. Do you ever "avoid looking at yourself" in mirror, letting your family and friends see you without your dentures in place?	22	76	2	100

TABLE 3: FREQUENCIES OF UPPER/LOWER ANTERIOR AND POSTERIOR SEGMENTS

Edentulous Segments	Frequency (n=152)
Upper Anterior (UA)	30
Upper Posterior (UP)	42
Lower Anterior (LA)	16
Lower Posterior (LP)	64

152, 30 patients had missing upper anteriors in which 62% patients had difficulty in accepting tooth loss while 7 patients had missing upper and lower anterior teeth 71 % had difficulty in accepting tooth loss.58% of the patients with missing anteriors teeth had difficulty in accepting tooth loss as compared to 39% of patients with missing posteriors. This result showed that majority of patients who had difficulty in accepting tooth loss, had missing anterior teeth whether upper or lower, this is because of impact of tooth loss on appearance of patients and such patients(59%) were also embarrassed

in discussing their tooth loss as compared to those with missing posterior teeth (P value=0.025). This result is similar to the study conducted by Akinboboye et al.<sup>8</sup>

This study showed that 32 percent of patients felt less confident after tooth loss as compared to 37 percent of the study by Fisk et al<sup>3</sup>. Tooth loss didn't affect self confidence of majority of patients similar to the results of the study conducted by Naik et al<sup>10</sup> and Akinboboye et al<sup>8</sup>. Our research showed that those with missing anterior teeth felt less confident (P value= 0.007) and perceived change in their overall appearance (P value=0.025) as compared to those with missing posteriors. It is also derived from our study that those who felt less confident after their tooth loss had difficulty in accepting their tooth loss (P value=0.000) as described in study by Fisk et al.<sup>3</sup>

42% of patients felt unprepared for the effects of tooth loss while in study by Fisk et al<sup>3</sup> 37% were unprepared and in study by Naik et al<sup>10</sup> 25% were unprepared for the effect of tooth loss. From those who had difficulty in accepting tooth loss 44% were unprepared for the effect of tooth loss. Most of the patients were prepared for the effects because they lost their teeth gradually in the duration of 3 to 5 years which allowed them to be mentally prepared for the difficulties they would face after tooth loss.

## CONCLUSION

It was concluded from this study that tooth loss affected emotions and attitudes of patients. Patients were prepared for tooth loss but still they had difficulty in accepting their tooth loss. They felt sad and handicapped. Most of the females felt handicapped as compared to males. Patients with upper posteriors, felt more handicapped as compared to patients with missing lower posteriors. Patients were embarrassed about discussing their tooth loss especially those who had missing anterior teeth, they felt less confident and perceived change in their overall appearance. So, it is concluded that missing anterior teeth affected social activities as compared to missing posterior teeth.

## LIMITATIONS

Present study was conducted in private hospital setup in which patient were comparatively less then government setups so our study may not be the representative of the whole population.

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## CONTRIBUTIONS BY AUTHORS

1 **RidaAnjum:**

Research idea, Data collection, Data entry, results and drafting of manuscript.

2 **Sunia Gul:**

Data collection.

3 **Muhammad Aamir Ghafoor Chaudhary:**

Study conception, proof reading and critical revision.

4 **Hira Riaz:**

Interpretation of results.