



## MOTIVATIONS, TREATMENT EXPERIENCES AND SOCIAL STIGMAS RELATED TO ORTHODONTIC TREATMENT IN GULBARGA POPULATION.

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### ABSTRACT

Facial aesthetics might be related to several factors: ethnic group, age, sex, region and this effects duration and outcome of treatment. In Indian context importance is given to facial beauty for marriage alliances.

**Aims:** This study was intended to:

- 1) Evaluate what motivated patients to seek Orthodontic treatment and their experiences during treatment.
- 2) Their social problems before seeking treatment and their status after treatment, from Indian perspective.

**Methods and Material:** A total of 100 subjects of both the genders aged between 18 to 35 years, were taken from three centres of Gulbarga city who met the inclusion and exclusion criteria. The responses were evaluated using statistical analysis.

**Results:** Major motivating factor was to have straight teeth. Significantly, only 9% of married subjects faced problems in their married life. Of the two thirds who were unmarried, 49% did not feel facial appearance as a hurdle. Almost 36% found the treatment to be very painful.

**Conclusions:** Facial aesthetics was major motivator for orthodontic treatment as compared to preventing future problems. Significantly orthodontic problem was neither found to be a hurdle for getting married nor causing problems in married life.

**KEYWORDS :** Motivation, orthodontic treatment, pain, facial aesthetics, braces.

### Introduction:

Physical appearance influences an individual's integration and self-esteem and may become critical to their psychological well-being.<sup>1</sup> Therefore, many patients seek orthodontic treatment motivated by the desire to improve their facial appearance<sup>2</sup> and minimize aesthetic related psychosocial problems.<sup>3</sup>

Thus, the purpose of this study is to determine the answer to following,

### Problem statement.

- 1) Motivation of patients to seek Orthodontic treatment and cooperate with the Orthodontist despite pain and other discomfort during the treatment.
- 2) Information given to the patients by physician regarding the experience of pain and other problems facing during the treatment.
- 3) Teasing and name calling among the peer group due to malocclusion.
- 4) Influence of Malocclusion on work, studies and sports activities.
- 5) Patients facing the problems on getting married and after married life due to Malocclusion, in respect to Indian culture.
- 6) Difficulty in eating and embarrassment in eating in public.
- 7) Difficulty in smiling in public and in photograph.

### OBJECTIVES

This study has been undertaken in Gulbarga's population to achieve the following objectives:

1. To understand their experience during treatment, such as pain and their willingness to continue with the treatment inspite of pain.
2. To know how well informed the patients are before the start of their treatment and was the information helpful during the treatment.
3. Quality of life after Orthodontic treatment.

**Study Design:** It is a Cross-Sectional questionnaire Study.

**Subjects and Methods:** After taking ethical clearance from the ethical committee at H.K.E Society's S. Nijalingappa Institute Of Dental Sciences And Research. The present cross sectional questionnaire study was carried out on 100 patients who had undergone Orthodontic treatment, belonging to both the genders, ranging from 18 to 35 years of age, who met the inclusion and

exclusion criteria have been taken in the study group. The questionnaire has been given to the Subjects whose treatment has already been completed or is near completion. The study has been conducted in the department of Orthodontics and Dento facial orthopedics of institutions and in private dental clinics of Gulbarga.

### Methods of collection of Data:-

#### Inclusion Criteria

1. All Patients who were undergoing and had undergone Orthodontic treatment.
2. Co-operative patients who were ready to participate in the study by taking part in questionnaire survey.

#### Exclusion Criteria

1. Patients with orthognathic problems.
2. Patients who have under gone surgical orthodontic treatment.
3. Uncooperative patients.
4. Patients who require orthodontic treatment after facial trauma.
5. Cleft and syndromic patients.

### Procedure:

1. The questionnaire consisted six parts and results were calculated for each part.
2. After taking consent from the patient, questionnaire was given or was explained to the patients in their own language.
3. Descriptive analysis was used to evaluate the responses to each section of the questionnaire.
4. The duration in years between the date of treatment and the date of survey was calculated for each subject from the data.

The associations between age at treatment and patient experiences, and sex and patient experiences were also tested.

**Statistical analysis:** The data collected was analyzed using chi square test by the SPSS 23 version software. The  $P \leq 0.05$  is significant and  $P \leq 0.003$  is highly significant where  $P > 0.05$  is non-significant. The duration of the study was of 24 months.

### RESULT:

A total of 100 subjects were selected from three centres of Gulbarga city. 83% (n=83) of the respondents were females (Fig 1). The age of respondents ranged from 18 to 35 years (median=22). The median age at the time of treatment is 19 years, range value is 14. Since female subjects were more than male; views of female subjects may be over represented in the study.

**Motivations for treatment:** A total of 100 subjects answered the questions about motivations for seeking treatment. As in Table no.1 most of the respondents gave multiple reasons. The most common reason given was to straighten the teeth (87%), of which 60.9% (n=53) were  $\leq 20$  years and 39.1% (n=34) were  $\geq 20$  years. 23% of the subjects thought they didn't have any problem and were referred for treatment by other clinicians.

**Effects of Orthodontic problems on social life:** The most common social problem faced by the subjects was being teased 58% as depicted in Table no.2 of these 60.3% (n=35) were  $\leq 20$  years. Female subjects were more (79.3%, n=46) compared to male (20.7%, n=12). Contrary to the common belief though 69% (p=0.008\*), of the respondents were unmarried almost 49% (p=0.009) didn't feel that their facial appearance was the hurdle in getting married. Very significantly only 39% of the respondents had no impact on their performance at work, study or sports and the remaining faced problems, (p=0.000\*\*). Almost 48% of the subjects were embarrassed to eat in public out of which 79.2% (n=38) were females.

**Pre-treatment experiences related to Dentofacial dysmorphism:** A total of 75% of subjects were self-conscious about the appearance of their teeth and facial appearance of which 81.3% (n=61) were females. 67% (p=0.012). As shown in table no.3.

**Information about treatment:** As in table no.4, 63% of the subjects were shown the photographs of patients who had had similar treatment, but 82% of them found oral information to be more helpful of which 86.6% (n=71) were females. 31% (p=0.032) found information leaflet also to be useful of which 90.3% (n=28) were  $\geq 20$  years and 74.2% n=23 were males.

Almost all subjects felt they were well informed before beginning of their treatment as in table no.5. Significantly 90% responded positively regarding information about requirement of extraction (p=0.05) of which 61.1% (n=55) were  $\leq 20$  years.

**Experiences of Orthodontic treatment:** Overall 12% of the subjects didn't find the procedure to be painful but 36.0% of the subjects found it to be very painful (females 38.9%) and 44% of the subjects found it to be painful sometimes (females 84.1%). P=0.05. Of the total subjects evaluated 9% of them at some point of time during their treatment wanted to remove the braces, but continued due to different reasons of which commonest was that they wanted to complete the treatment as in table no.6.

57% of subjects had braces on for 1 to 2 years of which 84.2% (n=48) were females and 3% couldn't remember how long they had it. 66.7% (n=38) were  $\leq 20$  years. 10% of the total subjects had braces for only one year and 70% of these were less than 20 years (p=0.007).

Significantly half of the subjects (50%) felt the duration of treatment was as they expected. And 14% thought that it was shorter than they expected (p=0.004) as shown in table no.6. When asked about difficulty in cleaning the teeth 63% of the subjects responded positively.

86% of the subjects were fitted with retainers but 59% of the subjects were not expecting to wear it.

**Overall information received by patient:** As shown in table no.9 one fourth of the subjects (25%) felt very well informed about retainers while 9% responded that they were not at all informed. As regards to braces 32% said they were very well informed whereas 9% said they were not at all informed. 37% of the subjects felt very well informed about the outcome of the treatment.

## DISCUSSION

Self-concept, self-image, status, pride, discomfort, and concern for

future oral health are but a few reasons for a person to get motivated for orthodontic treatment<sup>4</sup>.

Reasons for initiating orthodontic treatment may vary across cultural and socio-economic backgrounds<sup>5</sup>, however the most important motivating factors for an adult to seek orthodontic treatment has been found to be a) Improving facial appearance b) Improving psychosocial status.

This study was carried out to evaluate patient's motivations and reasons to seek Orthodontic treatment, to understand their experience during treatment, to evaluate their social problems before seeking treatment and their status and quality of life after treatment. In this study we tried evaluate the psychosocial element from the perspective of Indian culture.

While evaluating for motivation for seeking orthodontic treatment the most common reason given was to straighten the teeth (87%), although many subjects also answered 'to improve smile', 'to improve looks' (79% each) as a reason. Straightening of teeth as the most common motivating factor was also reported by A.C. Williams et al. (2005)<sup>6</sup>.

In common with other studies<sup>6,7</sup> this survey has shown that females are more likely to undergo the treatment for psychosocial reasons.

Of the total subjects 58% responded positively for being teased about their appearance, out of this 79% (n=46) were females. Most of them felt distressed due to this teasing. Ahmed Al Fawzan (2013)<sup>8</sup> has reported teasing as one of the motivating factor for considering orthodontic treatment.

Contrary to common belief although significantly almost two thirds (69%) of the subjects were unmarried (p=0.008<sup>7</sup>), half of them (49%) didn't think their facial appearance as a hurdle for their marriage (p=0.009\*). Of the one third of married subjects only 30% responded positively about having had problems with their spouse and all of them were females. This part of the investigation was especially carried out in Indian perspective and has not been reported previously, though Tayer and Burek (1981)<sup>4</sup> have studied the supportiveness or non-supportiveness of the spouse during the painful period of orthodontic treatment which also favours supportiveness.

Most of the subjects felt well informed about the treatment procedure as regards to requirement of extraction (90%), wearing braces (96%), duration of treatment (90%), wearing retainers (80%) and about possible complications involved with the treatment (76%).

Half the subjects (57%) wore the braces for 1-2 years out of which 66.7% (n=38) were  $\leq 20$  years, 28% had to wear it for 2-3 years of which majority (67.9%, n=19) were  $\geq 20$  years. Only 10% of the subjects wore it for less than 1 year (p=0.007\*).

Though 50% of the subjects thought the duration was as they expected, significantly 32% responded as finding it longer than they expected (p=0.004\*). Duration related behavioural demand is also reported by Judith E. N. Albino (1991)<sup>9</sup>

Table no.6 clearly explains that at least 36% of the subjects found the treatment to be very painful of which almost all (88.9%) were females (p=0.05\*). This finding is contradictory to A.C. Williams et al (2005)<sup>6</sup> where he reported only 9% of subjects describing the treatment to be very painful. Study of pain as problem was also carried out by Philipp A. Scheurer et al (1996)<sup>10</sup>.

Only 9% of subjects thought of removing the braces before completing the treatment but continued due to various reasons, commonest one being that they simply wanted to complete the treatment. Also 63% of them agreed to having faced difficulty in cleaning their teeth while on braces. This difficulty in cleaning their

teeth is also reported by A.C. Williams et al (2005)<sup>5</sup> but in a study carried out by Lew KK (1993)<sup>5</sup> majority of them didn't feel maintaining oral hygiene as a problem where only 9% responded in affirmation in his study.

Table no.9 shows the overall response of subjects to information received by the subjects as regards to braces, retainers and treatment outcome. While almost one third felt very well informed regarding braces (32%), retainers (25%) and outcome(37%) few of them felt they were not at all informed properly about braces (8%), retainers (9%) and outcome (8%) on scale from 1 to 5 where 1 depicts 'very well informed' and 5 depicts 'not at all informed'.

Since 23% of the subjects were initially unaware about their orthodontic problem, spreading of general awareness is important for encouraging seeking of orthodontic treatment at an early age.

As 36% of the patients felt the treatment to be very painful, pain management during the course of treatment whether therapeutic or psychological, should be stressed upon. As this study confirms with many previous studies<sup>4,10</sup>, complaint of pain should be addressed diligently for better patient compliance.

Also 32% of the subjects felt treatment was longer than they expected and 21% said they did not expect to wear the retainers. Hence emphasis should be given to providing more clear and detailed information about the complete treatment procedure.

Table No.1: Reason given by participants for seeking Orthodontic treatment (by age at treatment and by sex)

Reason for Orthodontic treatment	Total respondents	Age ≤20 years	Age >20 years	Chi-square test (P-value)	Male	Female	Chi-square test (P-value)
To look good and develop confidence	N 27	17(63%)	10(37%)	0.395	2(7.4%)	25(92.6%)	0.087
	Y 62	33(53.2%)	29(46.8%)		14(22.6%)	48(77.4%)	
To have good smile	N 15	10(66.7%)	5(33.3%)	0.431	4(26.7%)	11(73.3%)	0.278
	Y 79	44(55.7%)	35(44.3%)		12(15.2%)	67(84.8%)	
To Straighten teeth	N 9	3(33.3%)	6(66.7%)	0.110	1(11.1%)	8(88.9%)	0.639
	Y 87	53(60.9%)	34(39.0%)		15(17.2%)	72(82.8%)	
To prevent future problems with teeth	N 18	8(44.4%)	10(55.6%)	0.256	2(11.1%)	16(88.9%)	0.393
	Y 76	45(59.2%)	31(40.8%)		15(19.7%)	61(80.3%)	
Not to face problem in eating and speech	N 69	38(55.1%)	31(44.9%)	0.627	13(18.8%)	56(81.2%)	0.525
	Y 23	14(60.9%)	9(39.1%)		31(13.0%)	20(87.0%)	
Didn't think had a problem/reason	N 66	38(57.6%)	28(42.4%)	0.418	12(18.2%)	54(81.8%)	0.571
	Y 23	11(47.8%)	12(52.2%)		3(13.0%)	20(87.0%)	

\*Significant value

Table No.2: Effect of dental problem with social and married life and appearances (by age at treatment and by sex)

Social problems related dental appearances	Total respondents	Age ≤20 years	Age >20 years	Chi-square test (P-value)	Male	Female	Chi-square test (P-value)
Were you ever teased about your appearance?	N 36	20 (55.6%)	16 (44.4%)	0.647	4 (11.1%)	32 (88.9%)	0.230

	Y 58	35 (60.3%)	23 (39.7%)		12 (20.7%)	46 (79.3%)	
If yes, did this distress you?	N 25	16 (64%)	9(36%)	0.463	3 (12%)	22 (88%)	0.369
	Y 49	27 (55.1%)	22 (44.9%)		10 (20.4%)	39 (79.6%)	
Are you married?	N 69	46 (66.7%)	23 (33.3%)	0.008	11 (15.9%)	58 (84.1%)	0.903
	Y 27	9 (33.3%)	18 (66.7%)		4 (14.8%)	24 (85.2%)	
Are you married before the start of your treatment	N 41	23 (56.1%)	18 (43.9%)	0.003**	8 (19.5%)	33 (80.5%)	0.532
	Y 16	2(12.5%)	14(87.5%)		2 (12.5%)	14 (87.5%)	
If yes did you have problems in your married life because of your appearance	N 27	12(44.4%)	15(55.6%)	0.071	4 (14.8%)	23 (85.2%)	0.221
	Y 9	1(11.1%)	8(88.9%)		0 (0%)	9 (100%)	
Did the treatment help resolving this problem with your spouse	N 12	7(58.3%)	5(41.7%)	0.165	1 (8.3%)	11 (91.7%)	0.953
	Y 8	2(25.0%)	6(75.0%)		1 (12.5%)	7 (87.5%)	
If not married, do you feel your facial appearance is a hurdle in getting married	N 49	36(73.5%)	13(26.5%)	0.009*	7 (14.3%)	42 (85.7%)	0.329
	Y 18	7(38.9%)	11(61.1%)		1 (5.6%)	17 (94.4%)	
Has this resolved after the treatment	N 13	9 (69.2%)	4 (30.8%)	0.170	1 (7.7%)	12 (92.3%)	0.879
	Y 16	7 (43.8%)	9 (56.3%)		1 (6.3%)	15 (93.8%)	

Contd..\*significant value, \*\* highly significant

ontd.. table no. 2

Social problems related dental appearances	Total respondents	Age ≤20 years	Age >20 years	Chi-square test (P-value)	Male	Female	Chi-square test (P-value)
Was your facial appearance affecting your performance in	Work 25	7 (28%)	18 (72%)	0.000* (Highly significant)	5 (20%)	20 (80%)	0.588
	Studies 23	21 (91.3%)	2 (8.7%)		5 (21.7%)	18 (78.3%)	
	Sports 3	1 (33.3%)	2 (66.7%)		1 (33.3%)	2 (66.7%)	

<b>your work, studies, sports.</b>	None of these 39	21 (53.8%)	18 (46.2%)		4 (10.3%)	35 (89.7%)	
<b>Has this resolved after the treatment</b>	N 18	13 (68.8%)	5 (31.3%)	<b>0.336</b>	10 (20%)	40 (80%)	<b>0.121</b>
	Y 50	28 (56%)	22 (44%)		0 (0%)	18 (100%)	
<b>Did you feel embarrassed eating in public?</b>	N 51	31 (60.8%)	20 (39.2%)	<b>0.506</b>	7 (13.7%)	44 (86.3%)	<b>0.349</b>
	Y 48	26 (54.2%)	22 (45.8%)		10 (20.8%)	38 (79.2%)	
<b>Is there any difficulty in eating?</b>	N 71	45 (59.2%)	31 (40.8%)	<b>0.977</b>	15 (19.7%)	61 (80.3%)	<b>0.442</b>
	Y 17	10 (58.8%)	7 (41.2%)		2 (11.8%)	15 (88.2%)	

\*significant value, \*\* highly significant

**Table No. 3: Pre-treatment experiences related to their Dentofacial dysmorphology reported by participants (by age at treatment and by sex)**

Experiences	Total respondents	Age≤20 years	Age>20 years	Chi-square test (P-value)	Male	Female	Chi-square test (P-value)
<b>Did you avoid smiling while taking photographs?</b>	N 32	17(53.1%)	15(46.9%)	<b>0.536</b>	8(25%)	24(75%)	0.153
	Y 67	40(59.7%)	27(40.3%)		9(13.4%)	58(86.6%)	
<b>Were you self-conscious about your teeth and facial appearance?</b>	N 24	14(58.3%)	10(41.7%)	<b>0.977</b>	3(12.5%)	21(87.5%)	0.486
	Y 75	44(58.7%)	31(41.3%)		14(18.7%)	61(81.3%)	

\*significant value

**Table No.4 Information received by participant at the beginning of treatment (by age at treatment and by sex)**

Information about treatment	Total respondents	Age≤20 years	Age>20 years	Chi-square test (P-value)	Male	Female	Chi-square test (P-value)
<b>Extraction</b>	N 10	3 (30%)	7 (70%)	<b>0.05*</b>	3 (30%)	7 (70%)	<b>0.249</b>
	Y 90	55 (61.1%)	35 (38.9%)		14 (15.6%)	76 (84.4%)	
<b>Wearing braces</b>	N 4	2 (50%)	2 (50%)	<b>0.741</b>	1 (25%)	3 (75%)	<b>0.664</b>
	Y 96	56 (58.3%)	40 (41.7%)		16 (16.7%)	80 (83.3%)	
<b>Duration of treatment</b>	N 10	6 (60%)	4 (40%)	<b>0.893</b>	1 (10%)	9 (90%)	<b>0.534</b>
	Y 90	52 (57.8%)	38 (42.2%)		16 (17.8%)	74 (82.2%)	
<b>Wearing retainers</b>	N 18	12 (66.7%)	6 (33.3%)	<b>0.366</b>	1 (5.6%)	17 (94.4%)	<b>0.144</b>
	Y 80	44 (55%)	36 (45%)		16 (20%)	64 (80%)	

<b>Possible complications involved with treatment</b>	N 17	10 (58.8%)	7 (41.2%)	<b>0.504</b>	3 (17.6%)	14 (82.4%)	<b>0.892</b>
	Y 76	44 (57.9%)	32 (42.1%)		12 (15.8%)	64 (84.2%)	

\*significant value, \*\* highly significant

**Table No. 5: Participants experience before treatment.**

Wearing braces	Total respondents	Age ≤20 years	Age >20 years	Chi-square test (P-value)	Male	Female	Chi-square test (P-value)	
<b>Duration of wearing braces</b>	0-1 years	10	7 (70%)	3(30%)	<b>0.007</b>	2	8	<b>0.777</b>
	1-2years	57	38 (66.7%)	19 (33.3%)		9	48	
	2-3years	28	9 (32.1%)	19 (67.9%)		6	22	
	Cant remember	3	3 (100%)	0(0%)		0	3	
	<b>Longer than you expected</b>	32	11 (34.4%)	21 (65.6%)		<b>0.004*</b>	5	
<b>Shorter than you expected</b>	14	9(64.3%)	5(35.7%)	2	12			
<b>As you expected</b>	50	35(71.2%)	15 (28.8%)	9	43			
<b>Overall, how painful did you find wearing braces?</b>	SP 36	18 (50%)	18 (50%)	<b>0.237</b>	4 (11.1%)	32 (88.9%)	<b>0.05*</b>	
	MP 44	24(54.5%)	20 (45.5%)		7 (15.9%)	37 (84.1%)		
	NP 12	10(83.3%)	2 (16.7%)		5 (41.7%)	7 (58.3%)		
<b>Did you ever decide to remove your braces before the treatment completed?</b>	41	22(53.7%)	19 (46.3%)	<b>0.568</b>	16 (16.3%)	19 (83.7%)	<b>0.763</b>	
	9	4 (44.5%)	5 (55.5%)		8 (88.8%)	1 (11.2%)		

**What made you to continue the treatment (to remove brace before treatment completed)**

<b>You thought you will lose all your teeth</b>	15	10 (66.7%)	5 (33.3)	<b>0.469</b>	4 (26.7%)	11 (73.3%)	<b>0.193</b>
<b>You want to complete your treatment</b>	31	15(48.4%)	16 (51.6%)		3 (9.7%)	28 (90.3%)	
<b>People make fun of you</b>	15	9 (60.0%)	6 (40%)		1 (6.7%)	14 (93.3%)	

\*significant value, \*\* highly significant

**Table 6: Showing opinion of participants regarding difficulty in wearing braces**

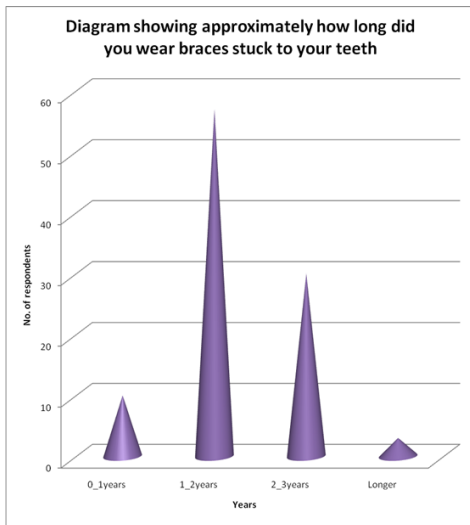
<b>Did you experience ulcers in your mouth as a result of wearing braces?</b>
-------------------------------------------------------------------------------

	Frequency	Percentage
Yes	62	62%
No	38	38%
<b>Did you have difficulty in cleaning your teeth?</b>		
Yes	63	63%
No	37	37%

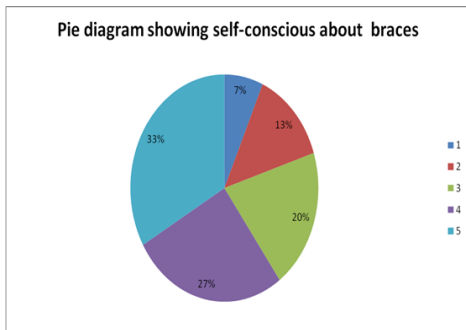
**Table 7: Showing how well information given to the participants regarding treatment.**

	Very well				Not at all
	1	2	3	4	5
<b>Braces</b>	32%	28%	23%	9%	8%
<b>Retainers</b>	25%	27%	20%	19%	9%
<b>Outcome</b>	37%	34%	13%	8%	8%

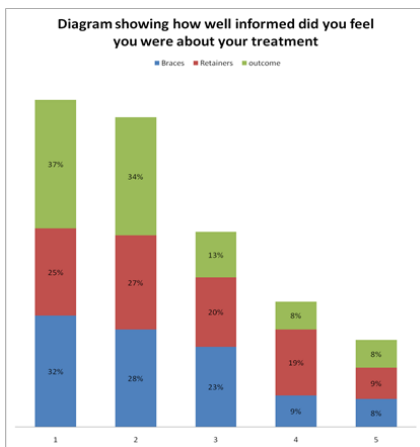
**Graph 1**



**Graph 3**



**Graph 4**



ANNEXURE

QUESTIONNAIRE

Sl. No. Corresponding OPD no.

Name of the Patient:

Age:

Sex: Male/Female

Age at the time of treatment:

Appendix I

**A. Reason for Orthodontic treatment.**

A1. Which of the following were reasons you felt for seeking treatment?

Please tick "Yes" or "No" for each.

- a) To look good and develop self-confidence      yes ( ) No ( )
- b) To have a good smile      yes ( ) No ( )
- c) To improve my social life      yes ( ) No ( )
- d) straighten my teeth      yes ( ) No ( )
- e) To prevent future problems with my teeth      yes ( ) No ( )
- f) Not to face problem in eating and speech      yes ( ) No ( )
- g) I didn't think I had a problem/reason      yes ( ) No ( )

A2.

- I. Were you ever teased about your appearance?      yes ( ) No ( )
- II. If yes, did this distress you?      Yes ( ) No ( )
- III. Are you married?      yes ( ) No ( )
- IV. Are you married before the start of your treatment      yes ( ) No ( )

- I. If yes did you have problems in your married life because of your appearance yes ( ) No ( )
- II. Did the treatment help in resolving this problem with your spouse Yes ( ) No ( )
- III. If not married, do you feel your facial appearance is hurdle in getting married? Yes ( ) No ( )
- IV. Has this resolved after the treatment yes ( ) No ( )
- V. Was your facial appearance affecting your performance in your Work Studies Sports activities none of these
- VI. Has this resolved after the treatment yes ( ) No ( )

A3. Did you feel embarrassed eating in public?      Yes ( ) No ( )

A4. Is there any difficulty in eating? Yes ( ) No ( )

**B. Before you had any treatment Yes ( ) No ( )**

B1. Did you avoid smiling while taking photographs?      Yes ( ) No ( )

B2. Were you self-conscious about the appearance of your teeth and facial appearance      Yes ( ) No ( )

B3.

i) Did you see the photographs of the patients who had Similar treatment, to help you make a decision?      Yes ( ) No ( )

**If no**, go to section B4

**ii) If yes**, did this help you?      Yes ( ) No ( )

B4.

l) Did you meet someone who had undergone similar treatment?      Yes ( ) No ( )

B5.



Were you given enough information to help you to make a decision about having treatment, with regards to?

- a) Extraction Yes ( ) No ( )
- b) Wearing braces Yes ( ) No ( )
- c) Duration of treatment Yes ( ) No ( )
- d) Wearing retainers Yes ( ) No ( )
- e) Possible complications involved with treatment Yes ( ) No ( )

**C. Wearing braces.**

**C1. For approximately how long did you wear braces stuck to your teeth?**

Please tick one box only

- 0 – 1 year ( )
- 1 – 2 years ( )
- 2 – 3 years ( )
- Longer ( )
- Can't remember ( )

**ii) Was this**

- Longer than you expected ( )
- Shorter than you expected ( )
- As you expected ( )

**C2.**

Did you get ulcers in your mouth because of wearing braces?  
Yes ( ) No ( )

If no, go to section C3

- ii) If yes, were you given any treatment to ease the problem ( )

**C3.**

- i) Overall, how painful did you find wearing brace?  
**Severely painful / mildly painful / not at all painful**
- ii) Did you ever decide to remove your braces before the treatment completed?  
Yes ( ) No ( )
- iii) If yes, then what made you to continue with the treatment?  
You thought you will lose all your teeth / you wanted to complete your treatment  
People make fun of you

C4. Did you have difficulty in cleaning your teeth? Yes ( ) No ( )

C5. Were you self-conscious about your braces?

**1 2 3 4 5**

**Not at all very much self-conscious**

C6. Did you have retainers fitted after the braces were removed?

Yes ( ) No ( )

C7. Were you expecting to have to wear retainers? Yes ( ) No ( )

**J. Information given**

J1. Over all how well informed did you feel you were about your treatment?

**Very well                      Not at all**

- a. Braces                      1 2 3 4 5**
- b. Retainers                1 2 3 4 5**
- c. Outcome                1 2 3 4 5**

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