



DENTAL CONCERN ASSESSMENT AMONG ADOLESCENTS WITH ORAL FACIAL CLEFTS

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ABSTRACT Visiting the dentist can be stressful for adolescents due to higher number of unexpected stimuli or the memory of earlier uncomfortable or even painful dental or medical treatment. This is particularly more in individuals with oral facial clefts. In order to address these questions a descriptive design was undertaken to assess the level of anxiety during dental procedures. Samples of 86 adolescents were selected through simple random technique. Dental concern assessment tool reveals the dental anxiety was exhibited equally among early, middle and late adolescents.

KEYWORDS : Adolescents; Oral facial clefts; Cleft lip; Cleft palate; Dental concern assessment.

INTRODUCTION

Oral Facial Clefts including Cleft Lip (CL) with or without Cleft Palate (CLP) are among the most common congenital anomalies in the world. CLP is a gap which occurs when the lip or roof of the mouth does not fuse completely during the first trimester of fetal development (Ram kumar Sah and Rajesh Powar, 2014). Occurrence of cleft lip and palate cases affects more of male subjects than female. According to Soumi Samuel et al, 2014, 48.1 % cleft lip deformity is more common in males whereas Cleft palate deformity is more common in females. CLP is associated with speech, hearing, feeding and dental problems. The quality of life of children with cleft lip/ palate is influenced negatively by over medical exposures starting from birth (Prahll, 2008).

Although facial clefts rank among the most common congenital malformations little information is available concerning the oral and dental health of children with cleft lip/or and palate (Owens etal, 1985). Children with cleft lip/ palate are exposed to invasive medical procedures in the first year of life. Children with cleft lip and palate may have to undergo a series of surgeries in each stages of their life.

Visiting the dentist can be stress full for children due to the high number of unexpected stimuli or the memory of earlier uncomfortable or even painful dental or medical treatment. Indeed, the etiology of dental fear is considered to be multi factorial (Rachman, 1977).

Because it is presumed that children with a high hospital exposure are most likely to develop anxiety in medical settings (Davey, 1989), it is reasonable to presume that children with cleft lip/ palate will have more fear of dental treatment in comparison with children without this condition, following Rachman's pathway (direct conditioning).

Research has indicated that direct conditioning factors (personal experiences of invasive dental as well as medical experiences) are very important in the development of childhood dental fear (Locket et.al. 1999). Children who had to visit the medical or dental clinic for treatment are often more likely to develop anxiety when this is not taken into consideration. Awareness of the mechanism of latent inhibition might focus the dentist on the consequences of his treatment approach and improve the child's attitude by using, for instance, tell-show-do, a clinical method based on gradual exposure to familiarize a child slowly with invasive treatments.

Therefore, the aim of the present study is to assess the level of dental anxiety in adolescents with a cleft and/or palate.

MATERIALS AND METHODS

This work was carried out at Jubilee Mission Medical College Hospital, Thrissur. Children with multiple abnormalities and/or recognized syndromes were excluded from this study. This study was conducted randomly among 86 adolescents between 12-19 years who admitted in Charles Pinto Center for Cleft Lip and Cleft Palate , JMMC, Thrissur. All the samples were asked to fill up the Dental Concern Assessment Tools developed by J.H Clarke and S. Rustvold. The tool consist of 26 dental procedures, in which the samples were

asked to rank their anxiety over the dental procedures. The maximum score was 4 and minimum score was 1. The data collected were then tabulated and analyzed.

RESULTS

Out of 86 samples 13 samples belong to early adolescents (12 yrs-14 yrs) , 44 samples belong to middle adolescents (15 yrs-17 yrs) and remaining 29 samples belongs to late adolescent stage (18 yrs-19 yrs). Out of 26 statements below given table explains the level of dental concern assessment for the first eleven statements by the samples.

Dental concern assessment of early adolescents

N=13

Sl No	Dental Concern	low		moderate		high	
		n	f	n	f	n	f
1	Sound of Drill	2	15.38	8	61.5	3	23.07
2	Injection	0	0	3	23.07	10	76
3	Sound of scalar	4	30.7	3	23.07	6	46
4	Gagging	1	7.69	4	30.7	8	61.5
5	Cold air hurts teeth	4	30.7	6	46.1	3	23.07
6	RCT	1	7.69	2	15.38	10	76
7	Extraction	1	7.69	1	7.69	11	84.6
8	Fear of being injured	0	0	0	0	13	100
9	Embarrassed about the condition of my mouth	1	7.69	2	15.38	10	76
10	worried about the cost of dental treatment	9	69.2	3	23.07	1	7.69
11	worried that I may need a lot of dental treatment	7	53.8	3	23.07	3	23.07

Dental concern assessment of middle adolescents

N=44

Sl No	Dental Concern	low		moderate		High	
		n	f	n	f	n	F
1	Sound of Drill	8	18.1	15	34.09	21	47.7
2	Injection	10	22.7	18	40.09	16	36.3
3	Sound of scalar	16	36.3	12	27.2	16	36.3
4	Gagging	7	15.9	20	38.6	17	38.6
5	Cold air hurts teeth	18	40.09	10	22.7	16	36.3
6	RCT	20	38.6	9	20.4	15	34.09
7	Extraction	20	38.6	10	22.7	14	31.8
8	Fear of being injured	0	0	18	40.09	24	54.5
9	Embarrassed about the condition of my mouth	5	11.36	10	22.7	29	65.9
10	worried about the cost of dental treatment	7	15.9	11	25	26	59
11	worried that I may need a lot of dental treatment	1	2.27	5	11.36	38	86.3

Dental concern assessment of late adolescents

N=29

Sl No	Dental Concern	low		moderate		high	
		n	f	n	f	n	f
1	Sound of Drill	2	6.8	8	27.5	19	65.5

2	Injection	0	0	10	34.4	19	65.5
3	Sound of scalar	2	6.8	14	44.8	13	44.8
4	Gagging	3	10.03	12	41.3	14	48.2
5	Cold air hurts teeth	2	6.8	18	62.06	9	31.03
6	RCT	15	51.7	10	34.4	4	13.7
7	Extraction	10	34.4	9	31.03	10	34.4
8	Fear of being injured	10	34.4	7	24.1	12	41.3
9	Embarrassed about the condition of my mouth	0	0	7	24.1	22	75.8
10	worried about the cost of dental treatment	4	13.7	6	20.68	19	65.5
11	worried that I may need a lot of dental treatment	3	10.03	10	34.4	16	55.1

DISCUSSION

For the early adolescents 8 (61.5%) were having concern for the sound of drill, 13 (100%) of samples were having fear of being injured and there was equal concern of anxiety towards RCT and embarrassed about the condition of my mouth with a response of 10 (76%). This data clearly shows dental anxiety was exhibited at younger age itself.

In the case of middle adolescents 38 (86.3%) worried that they may need a lot of dental treatment followed by 26 (59%) were worried about the cost of dental treatment. This result seem to indicate as the age increases adolescents are having concern by thinking of their future as well.

On the other hand 22 (75.8%) of the late adolescents were embarrassed about the condition of their mouth. 19 (65.5%) of the late adolescents were having anxiety by hearing the sound of drill, injection and also worried about the cost of dental treatment.

Although this is not a longitudinal study, the results seem to indicate that anxiety is not decreasing with increasing age. Thus it is very important to use strategies to avoid the development of dental fear. Prevention of pain and stepwise learning /gradual exposure to all new steps in treatment are of great importance in dealing with dental situation (Ten Berge, 2008).

CONCLUSION

Adolescents with a cleft lip and palate are a priority group. The dentist has a key role to play in providing continuing high quality preventive based care. Findings support that the dental fear is elevated in children in all age group. However these children seem to cope with their higher level of dental fear. Thorough treatment planning, patient support and skillful behavior management are important aspects of this multi faceted care.

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