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DISCUSSION QUALITY OF LIFE PERTINENT TO HEALTH OF MOUTH AND TOOTH BEFORE AND AFTER COMMENCING ORTHODONTIC TREATMENT BY REMOVABLE PLAQUE IN CHILDREN 6 TO 13 YEARS OLD WHO REFEREED TO TEHRAN UNIVERSITY OF MEDICAL SCIENCES , INTERNATIONAL CAMPUS , SCHOOL OF DENTISTRY

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ABSTRACT

Health of mouth and tooth are factors which influence upon quality of life, disorder in speaking, eating, laughing, taste of foodstuff, and other physical and psychological disorders are weak outcomes of mouth and tooth health. The aim of this research is to discuss life quality pertinent to health of mouth and tooth before and after commencing orthodontic treatment by removable plaque in children 6 to 13 years old who refereed to Tehran University of medical sciences, international campus, and school of dentistry. The methodology was measurement. The statistical society consisted of children who refereed to Tehran University of Medical Sciences, International Campus, School of Dentistry because of difficulty of tooth and mouth. By using sampling, 50 children have been selected and have been evaluated by clinical interview and questionnaire of quality of life pertinent to mouth health. For analyzing data and test of hypothesizes, Alpha Kronbach has been used for final estimation of questionnaire and Kolmogroph -Smirnoph test has been used for normality data, Pearson correlation test has been used for discussion relation between research variables and Variance analysis has been used in order to recognize difference between research variables and SPSS software version 18 has been used.

Keywords: Health of Tooth and Mouth, Life Quality, Orthodontic Treatment by Removable plaque, Children 6 t0 13 years

INTRODUCTION

Orthodontic means row and discipline as tooth which has Greece root. Thus, orthodontic means row teeth. Usually in our society, orthodontic has vast and widespread activity. Orthodontic is branch of dental science which its aim is accurate relation between all accurate or incorrect buildings. The main responsibility of orthodontic is to prevent inaccurate relations of teeth and structures. It is obvious that inaccurate relations cause disorders in aesthetic, talking, breath and nutrition. **(Shahabi and *et al*, 2008)** tooth and mouth difficulties like malocclusion have more prevalent and influence upon physical, economical, social and psychological aspects of persons. **(Bidi and *et al*, 2005)** often, persons exposed malocclusions are shy in social situations and it is possible to think differently based on appearance of face and tooth. **(Zehang and *et al*, 2006)**. Thus it is anticipated that orthodontic treatment is resulted to enhancement of self esteem and reduce anxiety in social situations. **(Albino and *et al*, 2006)** in fact, comprehension of physical, psychological and social impacts of Malocclusion and its impacts upon quality of life depends on mouth health and need more attention. By comprehending impact of Malocclusion on life, the possibility of treatment demand of orthodontic beyond from clinical factors and diagnostic is provided. **(Zehang and *et al*, 2006)**. Orthodontic removable plaques have more places for accumulation of bacteria compared complete parcils. The aim of mouth health is to delete pollution from surface cleaned of tooth. Inaccurate protection can result serious dangerous impacts on health of textures of teeth. **(Fernanda and *et al*, 2007)**. Life quality is regarded as feeling of its satisfaction or dissatisfaction from important life aspects. **(Becker and *et al*, 2004)** one of the life aspects is to communicate it with heath which shows real impact of health and disease on life quality. In this regard and especially, life quality pertinent to health of mouth is defined as: lacking impact of mouth situation on social life and positive feeling from his tooth- face situations. **(Cunningham and Hunt, 2001)** the studies showed that tooth and mouth difficulties influence on mental, social and bodily situation of patient and influence on quality of life by disorder in social attendance and interpersonal relations. **(Jenkinson and *et al*, 2002)**. As for the said contents, the researcher is looking to discuss life quality pertinent to tooth and mouth health before and after commencing orthodontic treatment by removable plaque in children 6 to 13 years who refereed to Tehran University of

Medical Sciences, International Campus , School of Dentistry.

METHODOLOGY

The methodology is descriptive-measurement, the statistical society consisted of children who refereed to Tehran University of Medical Sciences , International Campus , School of Dentistry because of mouth and tooth difficulties and 50 children have been selected As randomly from the said society and have been evaluated by clinical interview and questionnaire of life quality pertinent to tooth and mouth. In this study, the children who make decision to perform orthodontic treatment by removable plaque have been discussed three month before treatment and 3 months after treatment by (Child OIDP). For obtaining (Child OIDP), a form was provided which obtained quality pertinent to mouth health as interview. By using this indicator, severity of mouth situation on eight scientific and behavioral dimensions pertinent to tooth and mouth health have been evaluated. The form for collecting data consists of data like age, gender and graduation and occupation of parents which complete by parent or follower. Then, quality of life pertinent to mouth health has been evaluated as interview to children and based on estimation quality tools. In this study Child-OIDP criteria has been used in order to evaluate life quality pertinent to mouth health which is subjective criteria. By using these tools, abundance and severity of mouth situation on 8 scientific dimensions pertinent to mouth and tooth health were evaluated. Effectiveness for every 8 dimensions was equal to product (severity degree× abundance degree). Based on it, min and max degree of effectiveness was 0 and 9 for every dimension respectively. Total indicator equal to effectiveness degree for 8 dimensions divide on effectiveness of 8 dimensions (9×8=72). The product was multiplied in 100 and shown as percent which display total Child-OIDP degree. For analyzing data, descriptive and conferred statistics by SPSS software has been used.

Research Tools

The questionnaire of life quality was pertinent to mouth health which has been defined by Cunningham as suitable tool for estimation life quality dependent to Ertogatic situations this questionnaire consists of 22 special questions and four different aspects of life quality pertinent to ertoganic situations are like social aspect, aesthetic of tooth and face performance, mouth performance, awareness from face and mouth aesthetics (self esteem). This questionnaire has been discussed in countries like England, Brazil and Jordan and having high validity and credit. In Iran, it has been evaluated by Momenidanaee and

et al at 2013 and its validity was 0.86 by Alpha Kronbach and 0.91 by re test which is certified by statistical point of view.

RESULTS

As for analysis of data, children 7 years old by 8%, 8 years old by 16%, 9 years by 12%, 10 years old by 28%, 11 years old by 16% and 12 years old by 20% consisted the sample group. Also, the girls with 58% and the boys with 42% consisted of total sample. The more difficulty of tooth and mouth was about decay of tooth as 0.5 and the lowest about losing permanent tooth and hitting as 0.02 the children who refereed had difficulty if laughing and speaking.

Discussion Research Hypothesize:

In first part, significant level is equal to 0.001 which is smaller than alpha as 0.05 Thus, equality is accepted and in second part, significant level is as 0.013 which is smaller than 0.05 Thus, the hypothesis is certified. As result, treatment by orthodonticremovable plaque is influenced upon life quality (**Table 1**).

As displayed above (**Table 2**), significant level is .062 for this test which is biger than 0.05. Thus, the hypothesis is not certified. In other word, treatment with removable plaque is not effective in quality of life pertinent to mouth and tooth health of children.

As displayed in **Table 4**, significant level is equal to 0.045 which is smaller than alpha kronbach as 0.05 thus the hypothesis is certified. As result, treatment with orthodontic removable plaque has different impacts on quality of life pertinent to health of mouth and tooth of children in terms of gender.

As displayed in **Table 5**, significant level is 0.000 which is smaller than alpha kronbach as 0.05 Thus, the hypothesis is certified. In other word, treatment with orthodontic removable plaque can be effective on life quality pertinent to health of tooth and mouth before treatment on children.

As displayed in **Table 6**, number, average, deviance, deviance standard, confidence 95%, min and max are different between boys and girls.

As displayed in **Table 7**, significant level is equal to 0.039 which is smaller than alpha kronbach as 0.05 thus the hypothesis is certified. As result, treatment with orthodontic removable plaque is influenced on quality of life pertinent to health of mouth and tooth in terms of gender of children.

Side Findings of Research

As displayed in **Table 8**, significant level is larger than quality of life before and during treatment of alpha as 0.05 thus, there is not significant relation between age and hypothesizes.

As indicated in **Table 9**, significant level is larger than alpha kronbach as 0.05 on

quality of life before and during treatment. Thus, there is not significant relation between graduation of father and hypothesizes.

As indicated in **Table 10**, significant level is larger than alpha kronbach as 0,05 for quality of life before and under treatment. Thus, there is not significant relation between graduation of mother and hypothesizes.

Table 1: Three months before treatment by orthodontic removable plaque can influence on quality of life pertinent to mouth and tooth health in children

	Loun test for Variance			T test for average equality					
	F	Significant level	T	Freedom degree	Significant level	Difference average	Deviation	Confidence level 95%	
								Low	High
By equality	11.670	.001	-2.521	98	.013	-4.90800	1.94722	-8.77220	-1.04380
By inequality			-2.521	54.973	.015	-4.90800	1.94722	-8.81037	-1.00563

Table 2: Orthodontic Treatment by removable plaque is influenced upon life quality pertinent to heath of tooth and mouth of children.

	T	Freedom degree	Significant level	Average difference	Confidence level 95%	
					Low	high
OIDP under treatment	4.902	49	.062	2.87260	-.1497	5.8949

Table 3: Treatment by orthodontic removable plaque can be effective on children under treatment in terms of gender

					Confidence level 95%			
	Number	Average	Deviance	Deviance standard	Low	High	Min	Max
Girl	29	5.0128	4.42498	.82169	3.3296	6.6959	00	16.00
Boy	21	10.6314	15.18022	3.31260	3.7215	17.5414	00	65.27
Total	50	7.3726	10.63451	1.50395	4.3503	10.3949	00	65.27

Table 4: Number, average, deviance, deviation and confidence 95%, min and max are different between girls and boys

	Squares	Freedom degree	Average squares	F	Significant level
Between group	384.516	1	384.516	3.579	0.045
Inter group	5157.032	48	107.438		
Total	5541.448	49			

Table 5: Treatment with orthodontic removable plaque can be effective on quality of life pertinent to health of mouth and tooth before treatment.

	T	Freedom degree	Significant level	Average difference	Confidence level 95%

					Low	high
OIDP before treatment	**8.208**	**49**	**0000**	**3.49220**	**2.6372**	**4.3472**

Table 6: Treatment by orthodontic removable plaque can be effective on life quality pertinent to health of tooth ad mouth on children before treatment in terms of gender.

					Confidence level 95%			
	Number	**Average**	**Deviance**	**Deviance standard**	**Low**	**high**	**Min**	**max**
Girl	**29**	**2.8766**	**2.33835**	**.43422**	**1.9871**	**3.7660**	**00**	**6.96**
Boy	**21**	**4.3424**	**3.63454**	**.79312**	**2.6880**	**5.9968**	**00**	**10.67**
Total	**50**	**3.4922**	**3.00839**	**.42545**	**2.6372**	**4.3472**	**00**	**10.67**

Table 7: significant level is equal to 0.039 which is smaller than alpha kronbach as 0.05 thus the hypothesis is certified

	Sum of squares	**Freedom degree**	**Average squares**	**F**	**Significant level**
Between group	**26.171**	**1**	**26.171**	**3.010**	**0.039**
Inter group	**417.299**	**48**	**8.694**		
Total	**443.469**	**49**			

Table 8: Relation between age and answer to questions:

		Sum of squares	**Freedom degree**	**Average of squares**	**F**	**Significant level**
	Between group	**35.086**	**5**	**7.017**	**.756**	**.586**
OIDP before treatment	**Inter group**	**408.383**	**44**	**9.281**		
	Total	**443.469**	**49**			
OIDP under treatment	**Between group**	**487.893**	**5**	**97.579**	**.850**	**.522**
	Inter group	**5053.655**	**44**	**114.856**		
	Total	**5541.548**	**49**			

Table 9: Relation between graduation of father and answer to questions

		Sum of squares	**Freedom degree**	**Average of squares**	**F**	**Significant level**
OIDP before treatment	**Between group**	**3.331**	**2**	**1.666**	**.178**	**.838**
	Inter group	**440.138**	**47**	**9.365**		
	Total	**443.469**	**49**			
OIDP under treatment	**Between group**	**368.489**	**2**	**184.245**	**1.674**	**.198**
	Inter group	**5173.058**	**47**	**110.65**		
	Total	**5541.548**	**49**			

Table 10: Relation between graduation of mother and answer to questions:

		Sum of squares	**Freedom degree**	**Average of squares**	**F**	**Significant level**
OIDP before treatment	**Between group**	**4.775**	**2**	**2.388**	**256**	**.775**
	Inter group	**438.694**	**47**	**9.334**		
	Total	**443.469**	**49**			

OIDP under treatment	**Between group**	**58.711**	**2**	**29.355**	**252**	**.779**
	Inter group	**5482.837**	**47**	**116.656**		
	Total	**5541.548**	**59**			

DISCUSSION AND CONCLUSION

Clinical situation of mouth and tooth in influenced upon life quality pertinent to health of mouth and tooth. Ability of patient is dependent to situation of tooth and mouth in performing daily activity like chewing, speaking, laughing. This situation is influenced of quality of his life and welfare because of significant pains and dissatisfaction from chewing and speaking. This study showed that more health of tooth and mouth is, number of decayed teeth is low and quality of life will be higher as for health of tooth and because of it, his daily performance is better than others. the different studies on reason and motivation of persons for orthodontic treatment showed that some of them referred because of removing psychological – social problems due to face and teeth. High degree of satisfaction after treatment showed restoration of life quality due to reduction of problems and these problems are not aesthetics. The persons who are looking orthodontic treatment have more satisfaction than others and Ego (nature, prestige) is more than others and this power is seen in persons who have high potential and persons who have teeth-face problems are regarded as ineffective in social situations and smile little, therefore, treatment by orthodontic removable plaque is effective on quality of life of children.

SUGGESTIONS

- It is suggested that this research is done for the children between 6-13 , after ending the treatment by orthodontic removable and the results are compared to present researches.
- It is suggested that this research is discussed in another age group and the results are compared to present researches.
- It is suggested that this research is performed in another cities of Iran and the results are compared to current researches.
- It is suggested that this research is performed about fixed orthodontic and the results are compared by present research.

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