

Orthognathic Surgery Impression on Quality of life: Integral Perception

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ABSTRACT

Background: Patients with severe functional abnormalities are disappointed with their real facial appearance. Assessing the different perceptions and motivations influence in patients seeking orthognathic surgeries on their quality of life are the aims of this clinical study. This done by applying specific questioners' forms before and after treatment for demonstrates the patient's satisfaction with the result too. This can improve the success rate of orthognathic surgeries by improve patients expectations and satisfactions.

Material and Method: Fifty participants are chosen to share in this retrospective study attained the Multi-Disciplinary Team Committee in Al-Salam Teaching Hospital. Patients' age groups are from 17-40 years, no specific gender included in the study. Patients agree to participate and answering the questioners pre and post surgeries. Patients are nonsmokers with no medical disease history. Out of these inclusion criteria; patients excluded from the study. Patients with cleft lip and palate or any other syndromes that affect the dentofacial growth are also excluded.

Result: Age, gender, education level and marital status as social variables intended in this study; show no statistical differences concerning the questioner's answers as reached by statistical analysis by Independent Sample t Test and One Way Anova Test. Significant differences (0.000) have been observed between preoperative and postoperative satisfaction according to Paired Sample t Test.

Conclusion: Reaching optimum patients satisfaction is challenge as well as changing quality of life of our patients are provocation. In this article by using of different multiple questioners for integral perception in orthognathic surgery patients are crucial and more suitable for good understanding of patient's willing.

Keywords

Orthognathic Surgery, Quality of Life, Patient Perception, Patient Motivation, Quality of Life Questioner.

Highlight

- Quality of life is challenge in facial and dental deformities patients.
- Patients complaining either esthetic or functional dilemmas.
- Main advantages of different orthognathic surgeries are significantly improve psychological perceptions of the patients.

- Interview and Discussion with the patients are important step in preoperative assessment of orthognathic patients.

Introduction

Orthognathic Surgery can be defined as "surgical correction of the jaws allowing proper alignment and positioning of the bones and teeth relative to the base of the skull". Most of patients complaining either esthetic or functional dilemmas and in severe cases patients might complain from both impasses. Patients are usually seeking

surgeries for correction of dento-facial deformities. The main advantage of different orthognathic surgeries in adjuvant with orthodontics treatments are significantly improve psychological perceptions of the patients by improving whether esthetic and / or functions as stated in different articles [1]. Patients with severe functional abnormalities are disappointed with their real facial appearance [2].

Over the past 2 decades a rapidly growing phenomenon has been emerged it's known as "Oral Health Related Quality of Life" (OHRQoL).

OHRQoL is considered as quite new Actions and interactions which can be critically affected; ending with demote the individual's functional and psychological wellbeing [3]. Thus health-related quality of life (HRQoL) is considered a multidimensional concept, express patient's physical wellbeing, psychological and social wellbeing [4,5]. The importance of Quality of life (QoL) as it's considered basically a particular concept that cannot be arbitrated by others.

Quality of life (QoL) in dentofacial deformities patients are greatly influenced by orthognathic surgery; which results in a substantial perfection in QoL [6,7]. Influence of orthognathic surgeries assessment on QoL is a complicated relation [8], for more clear understanding specific measures such as generic health, generic oral health has been established [9]. Generic oral health measures aim to "assess the impact of oral health conditions on QoL" [10]. Condition-specific measures aim to assess the impact of a particular disease or condition on QoL [11]. OHRQoL are self-complete questionnaires to record the nature, severity and duration of symptoms or disease using 14-item version of the Oral Health Impact Profile (OHIP-14) and the Orthognathic Quality of Life (OQoL) Questioners used to estimate the dento-facial deformity perception. From this point of view authors got the idea for this study.

Facial appearance, mental health and social interaction issues are the main patients' chief complaint which requires orthosurgical management. Real complete patient perceptions assessment can't be estimated on the need for treatment only [9].

Improving the success rate of orthognathic surgeries are maintained through advancing patients expectations and satisfactions. Thus, after treatment completion a more certain satisfaction level can be realized from both typical perspective views stated by professionals, as well as from a particular point of view stated by patients [12]. Assessing the different perceptions and motivations influence in patients seeking orthognathic surgeries on their quality of life are the aims of this clinical study. This done by applying specific questioners' forms before and after treatment for demonstrates the patient's satisfaction with the result too.

Materials and Method

Fifty participants are chosen to share in this retrospective study from total 200 patients attained the Orthognathic Surgery

Multi-Disciplinary Team Committee (OSMDT Committee) in Al-Salam Teaching Hospital. OSMDT Committee is the only authorized working groups in Nineveh were most of dentofacial deformity patients are evaluated before decision making whether conventional orthodontic and / or orthognathic surgical treatment established. The study conducted in the period from April / 2011 to April / 2014.

Inclusion and Exclusion Criteria

Patients' age groups are from 17-40 years, no specific gender included in the study. Patients agree to participate and answering the questioners pre and post surgeries. Patients are nonsmokers with no medical disease history. Patients should be able to understand and answer the questioners. Out of these inclusion criteria; patients excluded from the study. Patients with cleft lip and palate or any other syndromes that affect the dentofacial growth are also excluded.

Ethical Approval: This study follow the Declaration of Helsinki; US Federal Policy for the Protection of Human Subjects and approved by the scientific committee of Nineveh Health Directorate / MOH / Iraq by licenses' Number (20/48) in date (9/6/2020).

Evaluation Questioners

In this article; investigators chose four different questioner forms aiming to integral evaluation of the patient quality of life and essential patient satisfaction. These are divided into four forms

- Oral Health Related Quality of Life Questioners (OHRQoLQ) Forms: Patients social and psychological evaluation questioner Forms
- Orthognathic Quality of Life Questioners (OQLQ) Forms: Patients perception assessment
- Patient's Motivation Questioners (PMQ) Forms.
- Patient Expectation (PEQ Preoperative) and Satisfaction (PSQ Postoperative) Questioners Forms

Social information's and clinical history were gathered from all incorporated patients as patient name, gender, age, skeletal class, education level, marital status, orthodontic history, type of surgery, detailed description of treatment decision. Answers of the questions are prepared through a personal interview done between the patient, one person of the family and committee rapporteur (Specialist Surgeon).

Questioner Forms

Oral Health Related Quality of Life Questioners (OHRQoLQ) Forms

Oral Health Related Quality of Life Questioners (OHRQoL) are most widely used for evaluation of oral health quality of life for patients. These adopted short version questioners published in by Slade et al, and comprises fourteen questions that are developed from the original copy [10].

These questioners marked as it assesses individual's perception regarding of social and psychological impact of oral disorders on

patients quality of life. The index provides global measures of self-reported 14 elements are distributed into seven domains: Functional limitation, physical pain and incapacity, psychological discomfort and incapacity, social inability and jobs difficulty doing; caused by oral conditions. Replies are rated on a 5-point Likert scale and patient should answer each question in relation to the rate which he is affected; with score point as 4 = very often; 3 = fairly often; 2 = occasionally; 1= hardly ever and 0 = never. Sum of these scores for the 14 question will give the final OHRQoL; score can varies from 0 to 56. Score point 0 consider as negative impact absence, while 56 reflect negative impact to be worst on oral health-related quality of life. These 14 questions are: Have you had trouble pronouncing any words because of problem with your teeth? , Have you felt that your sense of taste has worsened because of problem with your teeth?, Have you have painful aching in your mouth?, Have you found uncomfortable to eat any foods because of problem with your teeth?, Have you felt tense because of problem with your teeth?, Has your diet been unsatisfactory because of problem with your teeth?, Has you have to interrupt meals because of problem with your teeth?, Have you found it difficult to relax because of problem with your teeth?, Have you been a bit embarrassed because of problem with your teeth?, Have you been a bit irritable because of problem with your teeth?, Have you been a difficulty doing your job because of problem with your teeth?, Have you felt that life in general was less satisfying because of problem with your teeth?, Have you felt discomfort during chewing because of problem with your teeth?, Have you been dissatisfied with your facial aesthetic?

Orthognathic Quality of Life Questioners (OQLQ) Forms

Actual benefit from orthosurgical treatment in dentofacial deformities patients and their influence on patients' quality of life are assessed through Orthognathic Quality of Life Questionnaire (OQLQ); which was developed and validated by Cunningham [12].

Revised form of the original OQLQ copy is intended to be used in this paper. Authors reduce the original 22 questions into ten questions and omitting the questions that can give same meaning.

These questions are distributed into four sections: Social aspects, function, esthetics and Awareness of facial esthetics. Patient advised to read the statements carefully and select the correct answer he feels. As same as first form; 5-point Likert scale are used for reply. Each answer has point score with specific meaning where: 0 mean does not bother at all / never, 1 means it bothers a little / hardly ever, 2_3 lie between these statements (Occasionally, Fairly often), 4 means it bothers a lot (Very often).

As it's a point scale, patients can select any point from 0 - 5 as they are affected by any level. OQLQ total score can vary from 0 to 40. A lower score advocates enhancement in quality of life, whereas a higher score equalize worse quality of life. Ten Questions included are I am self-conscious about the appearance of my teeth and my facial appearance, I have problems chewing, I don't like eating in public places, I spend a lot of time studying my face and my teeth

in the mirror, I dislike having my photograph taken, I often stare at other people's teeth and people's faces, I try to cover my mouth when I meet people for the first time, I worry that people will make hurtful comments about my appearance, I do not like smiling when I meet people, I sometimes get depressed about my appearance.

Patient's Motivation Questioners (PMQ) Forms

Questioners selected are revised from original copy published by Jan Rustemeyer [11]. Nine questions was given; perception of patients with his relative are recorded; the opinion of relatives on the result of treatment; patient intentions to undergo orthognathic surgery and evaluation of the results; patient self-confidence; and willingness to recommend orthognathic surgery to others. Overall subjective findings were evaluated by patients on an 11-point scale of Visual Analog Scale with grades from 0 to 10 (VAS; 0=poor, 10=excellent). Each patient chose single specific mark on each question. These questioners adopted here are: How would you assess your facial esthetics before surgery? How would you assess your chewing function before surgery? Assuming that orthognathic surgery is indicated, would you recommend it to others? Do you want immediate change in facial appearance? It's your own decision to undergo surgery? Are you worried from the surgery itself? Are you afraid from result of surgery? Have your been properly informed about treatment and surgeries? And the final vital question of the list is about specific motivation that make participant seek surgery, what was your primary intention to undergo orthodontic surgery?

Patient Expectation (PEQ Preoperative) and Satisfaction (PSQ Postoperative) Questioners Forms

Preoperative evaluation Questionnaires consisting of 2 questions were given preoperatively and 3 question post operatively. Similar to PMQ; five questions were answered using an 11-point evaluation scale in Visual Analog Scale Grades (VAS; 0=poor; 10=excellent). These questions are:

Patient Expectation (PEQ Preoperative):

1. How do you expect about the surgical outcome of your operation?
2. How do your relatives and friends expect in total about the surgical outcome of your operation?

Satisfaction (PSQ Postoperative):

1. How do you evaluate the surgical outcome of your operation?
2. How do your relatives and friends evaluate the surgical outcome of your operation?
3. Are you satisfied with result of surgery?

All questioners' forms are translated to Arabic Language to make easy for patients to self-answer the questions.

Each patient has unique total marks on each questioner' form; data recorded with Microsoft excel. Differences and correlation between variables are assessed and analyzed by Statistical Package for Social Sciences (SPSS) software program IBM version 16. Three tests are used; Independence Sample t Test, One Way Anova Test and Paired Sample t test.

Correlation considered significant if $p < 0.05$ and highly significant if $p < 0.001$.

Result

Fifty participants are chosen to share in this retrospective study. Evaluation of orthognathic surgery impact on patients with dentofacial deformities are organized through answering four different forms of questioners. Assessment and analysis of these questioners' answers are explained in details as follow:

Oral Health Related Quality of Life Questioners (OHRQoLQ) Forms

Table 1 shows detailed answers with percentages for each question among sample. Score point 0 consider as negative impact absence, while 56 reflect negative impact to be worst on oral health-related quality of life. More than half answers pointing to worst impact of patients toward their life in different levels, with highest worse score for question 12 (Have you felt that life in general was less satisfying because of problem with your teeth?); ninety percent of participant answered as very often. Question 14 (Have you been dissatisfied with your facial aesthetic?) also shows near same result (80%). On the contrary question two which contribute taste alteration because of teeth problem mirrored that 70% of sample has no effect or negative impact.

Orthognathic Quality of Life Questioners (OQLQ) Forms

Definite estimation of dentofacial deformity surgeries and their influence on patients' quality of life are assessed through OQLQ. It's a four point scale, with total score can ranged from 0 to 40. Enhancement in quality of life reflected through lower score, whereas a higher score propose that worse quality of life.

Surly each patient has its own score as expressed in table 2. Question five (I dislike having my photograph taken) shows the worst higher score which clarify that worse quality of life (82%). No wide difference in answers of question 8 (I worry that people will make hurtful comments about my appearance) which reflect the psychological upset of the patients (74%).

Table 1: Oral Health Related Quality of Life Questioners (OHRQoLQ) Answers among Sample.

Q. No.	Answers									
	Never		Hardly ever		Occasionally		Fairly often		Very often	
	No.	%	No.	%	No.	%	No.	%	No.	%
Q. 1	0	0%	0	0%	34	68%	0	0%	16	32%
Q. 2	35	70%	5	10%	5	10%	5	10%	0	0%
Q. 3	7	14%	18	36%	25	50%	0	0%	0	0%
Q. 4	10	20%	2	4%	12	24%	15	30%	11	22%
Q. 5	0	0%	0	0%	7	14%	3	6%	40	80%
Q. 6	0	0%	14	28%	2	4%	23	46%	11	22%
Q. 7	0	0%	0	0%	6	12%	13	26%	31	62%
Q. 8	2	4%	4	8%	2	4%	8	16%	34	68%
Q. 9	0	0%	0	0%	5	10%	19	38%	26	52%
Q. 10	0	0%	2	4%	16	32%	13	26%	19	38%
Q. 11	7	14%	0	0%	10	20%	5	10%	28	56%
Q. 12	5	10%	0	0%	0	0%	0	0%	45	90%
Q. 13	0	0%	0	0%	16	32%	3	6%	31	62%
Q. 14	2	4%	0	0%	10	20%	1	2%	37	74%

Patient's Motivation and Self Confidence Questioners (PMQ) Forms

Patient's perception with his relative are recorded through this questioner forms. 11-point scale based on a visual analog scale was rated by patients. The most imperative question is about exact motivation for seeking orthognathic surgery; answers are esthetic, function, both and I don't know. Twenty eight participants (56%) look for surgery because of esthetic problems on the contrary only 8 (16%) patients have both esthetic and functional problem. Rests of patients (14, 28%) are complaining functional problems only.

Rests of questioners reflect the patient's sense of the beauty of his face, function and movement performance of facial bones and dentition with his convenience. Table three highlights the answers scores with percentages.

Patient Expectation (PEQ Preoperative) and Satisfaction (PSQ Postoperative) Questioners Forms

Five direct questioners consisting of 2 patient expectation questions were given preoperatively and 3 satisfaction evaluation question post operatively. Table four shows percentages of answers scores. To some extent patients (64%, 90%) expect that surgeries will be excellent solutions for solving their problems as high scores (8 and 9) are recorded. Similar result obtained for post-operative satisfaction with the result of surgeries. Patients are fully satisfied with the result postoperatively (score 10 answers for the questioners respectively 74%, 80%, 78%).

Age, gender, education level and marital status as social variables intended in this study; Figure 1-4 shows descriptive mean analysis for questioner's forms in Details. There is no statistical difference concerning the questioner's answers which proofed by statistical analysis using Independent Sample t Test and One Way Anova Test. That's mean no relative effect between variables (age, gender, education level and marital status) on quality of life in patients with facial deformity.

Significant differences (0.000) have been observed between preoperative and postoperative satisfaction according to Paired Sample t Test (Table 5 and Figure 5).

Table 2: Modified Orthognathic Quality of Life Questioners (OQLQ) Answers among Sample.

Q. No.	Answers									
	Never		Hardly ever		Occasionally		Fairly often		Very often	
	No.	%	No.	%	No.	%	No.	%	No.	%
Q. 1	0	0%	0	0%	28	56%	0	0%	22	44%
Q. 2	0	0%	3	6%	28	56%	8	16%	11	22%
Q. 3	0	0%	10	20%	29	58%	6	12%	5	10%
Q. 4	0	0%	0	0%	20	40%	17	34%	13	26%
Q. 5	0	0%	0	0%	6	12%	3	6%	41	82%
Q. 6	0	0%	11	22%	2	4%	26	52%	11	22%
Q. 7	0	0%	0	0%	6	12%	13	26%	31	62%
Q. 8	0	0%	4	8%	4	8%	5	10%	37	74%
Q. 9	0	0%	0	0%	5	10%	19	38%	26	52%
Q. 10	0	0%	2	4%	16	32%	13	26%	19	38%

Table 3: Patient's Motivation and Self Confidence Questioners (PMQ) Answers among Sample.

Q. List	Q. No.	Grades										
		0	1	2	3	4	5	6	7	8	9	10
Preop. Expectation	Q.1									64%	36%	
	Q.2								10%		90%	
Postop. Satisfaction	Q.3										26%	74%
	Q.4										20%	80%
	Q.5										22%	78%

Table 4: Patient Expectation (PEQ Preoperative) and Satisfaction (PSQ Postoperative) Questioners among Sample.

Q. No.	Grades										
	0	1	2	3	4	5	6	7	8	9	10
Q1		68%			26%		6%				
Q2		10%		64%					26%		
Q3								22%	78%		
Q4										12%	88%
Q5								46%	20%		34%
Q6	66%			34%							
Q7	40%								60%		
Q8											100%

Table 5: Paired Sample t-Test Statistical Analysis between Expectation and Satisfaction.

No.	Mean			Sta. Dev.	T cal.	T tab.	Sig.
	S.preop	S. postop	Deferens				
50	17.1600	29.3200	12.1600	0.99714	86.231	2.032 (0.05) (49)	0.000

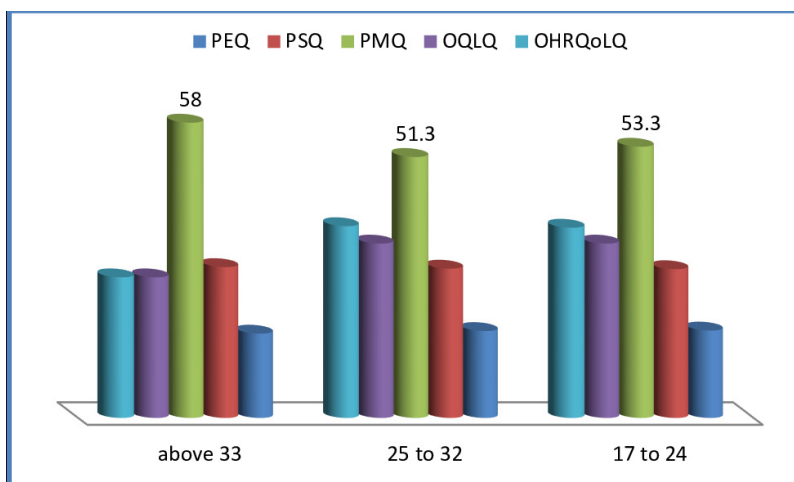


Figure 1: Descriptive analysis (Age) for each Questioners list among Sample.

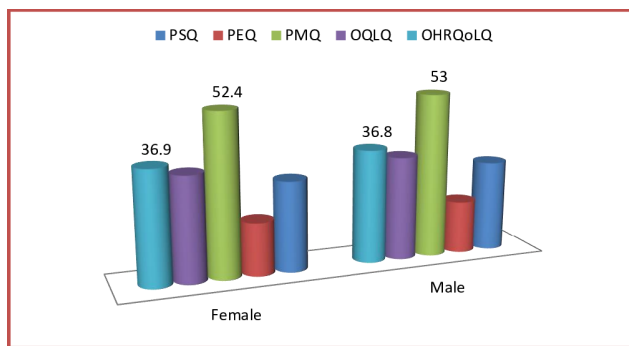


Figure 2: Descriptive analysis (Gender) for each Questioners list among Sample.

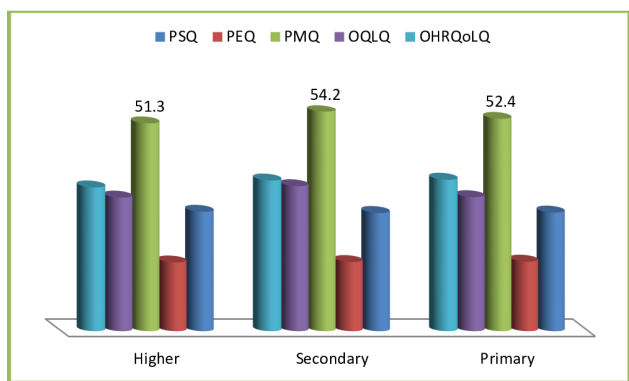


Figure 3: Descriptive analysis (Education) for each Questioners list among Sample.

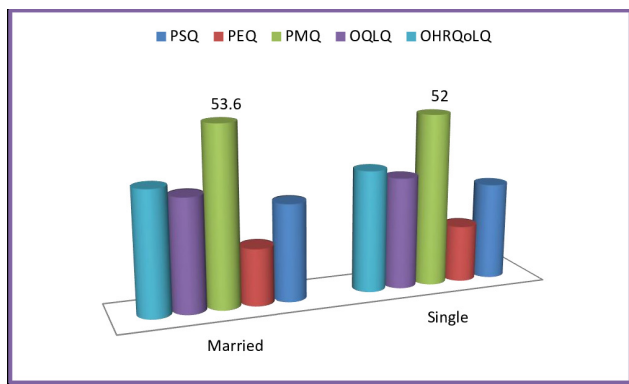


Figure 4: Descriptive analysis (Marital Status) for each Questioners list among Sample.

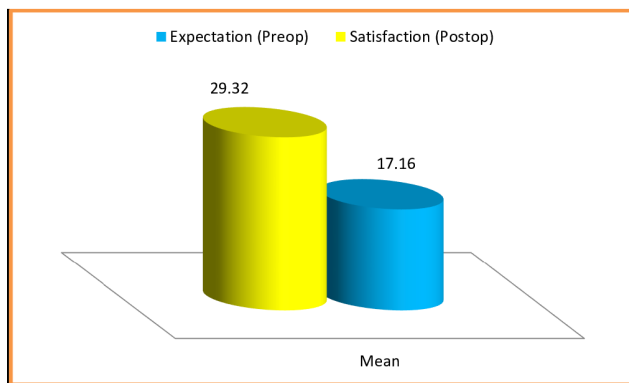


Figure 5: Statistical Differences between Expectation and Satisfaction among Sample.

Discussion

Main OHRQoL assessments are to afford the best treatment need and sequel and likewise implement data to perform appropriate precautionary and management services for the future based on what the clinician, scientist and oral healthcare need.

Complete physical, mental and social wellbeing is the main definition of health estimated by world health organization (WHO). Quality of life is the normalization of personal health in all aspect; physical, mental and social [13]. Patients with dentofacial deformities might present with are compromised psychology so far beside esthetic and functional disturbances [14]. Actually social activities and function are limited in these patients which in turn affects their quality of life.

Various authors show improvement of these patients post surgeries as we deduce in our study as well [14,15]. Oral health also can be affected in such patients need orthognathic surgeries; limitation of oral functions make patients incapable socially resulted in affecting quality of life again. Orthognathic surgeries aim to improve esthetic, function, oral health and sequentially socio-psychology of individuals with their quality of life [16].

In this study we estimate the actual perception and exact feeling sense of dentofacial deformities individual by self-answering various questioners forms deals with several aspects of life quality. Socio-demographic variables are estimated too in accordance to age group, gender, education level and marital status [17]. Each patient answered four questioner forms preoperative for integral conclusion of physical, mental and social wellbeing. Furthermore estimation of perception difference between preoperative expectation and postoperative satisfaction by direct straight questions [8]. According to our search in the published articles; authors thought that is the first research were assessment of orthognathic surgery impact on quality of life judged by these subjective criteria make this article original one.

Careful insight to the result; most of participants were distinguished as single, female having primary schools only and aged less than 32 (60%, 60%, 48%, 94% respectively). During discussion with parents; authors have a clue that they are afraid from that their daughter will stay single because of her shape and that she has few opportunities for engagement. This cultural scenario to some extent is near reality in the Middle Eastern Countries [18]; although we don't highlight this in the study but most of our female patients are getting married after operations.

In this article also we take in consideration the age and gender action on quality of life in our patients and education level.

In the first forms as we highlight previously 14 short questioners are used to conclude the oral health impact profile on quality of life. Most important questions in the forms which reflect the individualists living of our participants are Q. 12 (Have you felt that life in general was less satisfying because of problem with your teeth?); Q. 5 (Have you felt tense because of problem

with your teeth?) and Q. 14 (Have you been dissatisfied with your facial aesthetic?); answers were very often (90%, 80% and 74% respectively). This is clear as they are socially isolated; feeling embarrassed from dealing with others because of their facial deformity. This result can be compatible to study done by Kiyak AH stated that enhancement of the social in interpersonal communication and cognitive emotional comfort are main goal making patients with facial deformity seek treatment, with expectation of improving their self-dignity and respect [19].

In the second forms of questioner is concerned with orthognathic surgery estimation on quality of life in different aspects general health, oral health and psychosocial well-being. Sixty percent of participants are female, this result also estimated by Rodrigo et al 2019 [9]. In second / third decade of live were beauty is more psychological social obstacles; this proved in the questioners answers (question 5 and 8) of the orthognathic quality of life. Question 5 (I dislike having my photograph taken) 82% answered very often; regarding question 8 (I worry that people will make hurtful comments about my appearance) 74% answered very often also.

Patients with facial deformities highly expect to have enhancement in their interpersonal association and their psychological well-being [19,20].

For patient motivation questioners estimation of function (28%) or esthetic (56%) and in some cases both reason (16%) push patients seeking change in their face. The present study goes with findings estimated and published in previous studies by Reza etal 2014 and Khadka et al 2011 [16,17].

It's well-known that aesthetics as well as functions abnormalities seen in dentofacial deformities patients; have a significant influence on patients QoL. In addition; studies confirm that facial esthetics improvement are main cause make patients seek orthognathic surgeries [20]. Additionally, some studies report that masticatory function enhancement rather than changes in appearance are main motivation for treatment [21].

Ordinarily esthetic and function advancement and correction are the main reasons that make patients seek orthosurgical treatment. Matteo Bruccoli et al approve in his published article that esthetic aspect motivations may be associated with psychological problems in these individual [22].

From answers grades it's clear that our patients are carry all the responsibilities for underwent surgeries reflecting the importance of the topic to solve their problem in all aspects.

Results of this study appear to settle the results of previous literature, reflected in questioners answer (Q. 9 I do not like smiling when I meet people 52% answer very often and Q.4 Do you want immediate change in facial appearance? 88%) [23]. Patients reply are suggestive of personality disorders and confident in taking hazards and facing danger although this result on the contrary of

the result of Yalbuzzdag SA, 2016 [24] were they conclude that "orthognathic patients seem to be less responsible, less purposeful, less tolerant, and less empathic".

Last questioner forms shows significant difference in p value according to patient expectation preoperative and satisfaction post-operative, straight forward questioner's answers for evaluations are used.

The results of this study are on the contrary of a study done by Abdullah et al. [25] as he stated that social aspects domain of patient; improvement more essential than the change in function and esthetic. This study can be preliminary study conducted in Nineveh; Al-Salam Teaching Hospital/ OMDT Clinic patients.

Assessment of orthognathic patients QoL in this manner recognized in few studies whereas evaluations of social, physical and psychological perceptions are estimated, through searching different articles and literature according to our insight. Likewise, based on our knowledge; this study can be first one evaluate reality in preoperative expectation and postoperative satisfaction of orthognathic patients. Timing of questionnaires interview are controversy. One day before and six months after surgery are the best recommended time of most authors in different manner, for our patients questioners answered in Orthognathic Surgery MDT and re utilized after 3 months post-surgery [26-28]. Articles suggest this period of time because within this period, complete healing process maintained. Surgical complications are subsided as swelling subsided, permit better fantasy of esthetic and function alteration, and the patient returns to communicate socially [29-31]. In this study we achieve 3 months postoperative judgment. Absolutely, the immediate postoperative stage which includes postoperative swelling, pain, intermaxillary fixation, and so on might denote the most challenging time post surgeries.

Concept of changing facial deformities markedly changes the patient's appearance and improves their life in various ways confirmed in numerous published articles [32-38]. The results obtained in this study showed quality of life perfection with improvements related to psychological, and social charisma; post surgeries.

Therefore, in our belief, assessing patients' physical, social, mental health and emotional status before surgery are vital points. Understanding the synopsis and relation with their effect on patients may give insight into the psychological; emotional capacity and benefit of orthognathic surgeries. Truthful contact between the surgeon and the patient, will permit full understanding of challenges and difficulties that might be underwent through or postsurgery; also patient will have real idea about what to expect form orthognathic surgery.

Limitations

Type of surgeries as well as surgical difficulties variation is preferable to be estimated too. Furthermore, larger sample size

is recommended and preferable. Timing of data collection when change evaluated in patient life needs further estimation.

Conclusion

Reaching optimum patients satisfaction is challenge as well as changing quality of life of our patients are provocation. Different questionnaires are designed in published articles serving to reach this goal. In this article, using of different multiple questioners for integral perception in orthognathic surgery patients are crucial and more suitable for good understanding of patient's willing. Most patients who underwent orthognathic surgery highly satisfied with the result postsurgery. However, intensify motivation, psychological, function and expectation factors involved in orthognathic surgery scheduling can avoid un-wanted complications for both surgeons and patients.

In this study, orthognathic approach will allow clear amends normalization of esthetic and function, thus significantly alter the patients' acquiescence and psychology. Of course, prospective investigation with a more study population and follow-up is needed to elucidate and obtain absolute results.

These forms are important basic lists for the good understanding and evaluation of quality of life of the patients in its Arabic translated version.

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