

Comparing OHRQoL between pre- and post-Comprehensive Care Cohorts with post-CCC Clinical and Radiographic Evaluation at Pharos University

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Abstract

Background

Oral health–related quality of life (OHRQoL) has become an important patient-centered outcome in evaluating dental treatment. Comprehensive case care (CCC) integrates multiple dental disciplines to manage complex oral conditions; however, limited evidence exists regarding its influence on OHRQoL within academic clinical settings.

Objectives

This study aimed to compare OHRQoL between patients scheduled to receive comprehensive case care and those who had completed it at a university dental clinic, and to evaluate the clinical outcomes of the treated group.

Materials & Methods

A cross-sectional comparative study was conducted among 28 patients attending the dental clinics of Pharos University, Egypt. Participants were allocated into two equal groups: Group 1 included patients scheduled to begin CCC, and Group 2 included patients who had completed CCC during the previous two years. We assessed OHRQoL using the Oral Health Impact Profile-14 (OHIP-14). Group 2 additionally underwent clinical and radiographic follow-up examination. Demographic variables and OHIP-14 domain scores were compared using chi-square testing at a significance level of $p \leq 0.05$.

Results

The two groups were comparable in most demographic characteristics. Statistically significant differences were observed across all OHIP-14 domains, with Group 2 demonstrating significantly better OHRQoL than Group 1 ($p < 0.05$). Poor overall OHRQoL was reported by 64.3% of Group 1 participants, whereas 92.9% of Group 2 participants demonstrated good OHRQoL. Clinical follow-up of Group 2 showed favorable oral health outcomes, with 85.7% achieving excellent overall clinical scores.

Conclusions

Patients who had completed comprehensive case care reported better OHRQoL than patients awaiting treatment. A small proportion of participants exhibited temporomandibular joint tenderness, unhealthy gingival conditions, and radiographic evidence of periapical or periodontal bone loss on follow up examination. These findings suggest that comprehensive multidisciplinary dental care may positively influence both clinical oral health and patient-perceived well-being.

Introduction

Oral health is an essential component of general health and well-being because it influences an individual's ability to eat, speak, smile, and interact socially without discomfort or embarrassment. (1) Disturbances in oral function or appearance may interfere with daily activities and can negatively affect emotional and social well-being. For this reason, oral health should not be evaluated solely through clinical findings but also through its influence on a person's quality of life. (2)

Oral diseases remain among the most prevalent chronic conditions worldwide. Dental caries, periodontal disease, tooth loss, and other oral disorders may lead to pain, impaired mastication, speech difficulties, and dissatisfaction with appearance.(3) Although conventional clinical measures such as probing depth, caries indices, and radiographic findings are important for determining disease severity, they do not fully reflect the patient's own perception of oral health or the impact of oral conditions on daily life.(4)This has led to increasing recognition of patient-reported outcomes as an important component of oral health assessment.(1) This evolution from a biomedical model to a comprehensive psychosocial approach reflects the growing interest in how oral conditions affect the psychological and social aspects of daily life.(5)

Oral health–related quality of life (OHRQoL) is a multidimensional concept that describes how oral conditions affect physical function, psychological status, and social interaction. It reflects the extent to which oral health influences an individual's comfort, self-esteem, and ability to perform normal daily activities. (6) Previous studies have shown that poor oral health can significantly reduce OHRQoL through pain, difficulty in chewing, impaired speech, and social withdrawal, with physical pain and psychological discomfort consistently were the most affected domains.(7) OHRQoL assessments can reveal where individuals struggle and where they do well, making them valuable for designing targeted, multidisciplinary support programs. These same tools can then track whether those interventions actually work. For instance, if assessments show that older adults are struggling emotionally, psychological services could be woven into community-based programs to address that gap. (8)

Management of patients with complex oral conditions frequently requires coordinated care involving multiple dental specialties. Comprehensive Case Care (CCC) is a patient-centered model that integrates periodontics, endodontics, restorative dentistry, prosthodontics, and oral surgery into a unified treatment plan designed to restore oral function and improve long-term oral health.(9) The interdisciplinary nature of this approach is particularly important because successful rehabilitation often depends on addressing periodontal stability before definitive restorative or prosthetic procedures can be performed predictably. (10)

Beyond improving clinical outcomes, comprehensive care may also influence how patients perceive the results of treatment. Previous studies have suggested that multidisciplinary dental care can improve comfort, esthetics, oral function, and patient satisfaction more effectively than isolated treatment approaches. (11, 12) Since OHRQoL captures the patient's own experience of treatment, therefore,

assessing this outcome may provide a broader understanding of the benefits of comprehensive dental care. (13, 14)

At Pharos University, the CCC model is incorporated into undergraduate clinical training, where senior dental students manage patients requiring multidisciplinary treatment under faculty supervision. Although clinical treatment outcomes are routinely assessed, limited evidence is available regarding how this model influences patients' perceived quality of life after treatment in an academic clinical setting. However, recent prospective research in university clinics has demonstrated that comprehensive dental care leads to a significant reduction in psychological and physical disability, as measured by the Oral Health Impact Profile (OHIP-14). (12, 13)

Most published research has focused on single treatment modalities or specific oral conditions, leaving a gap in understanding the broader patient-centered outcomes of coordinated care. Therefore, this study aimed to compare the OHRQoL of patients scheduled to receive CCC with that of patients who had completed CCC during the previous two years at Pharos University, in addition to evaluating the clinical treatment outcomes and oral health status of the post-treatment group. We hypothesized that there is significant relation between CCC approach and OHRQoL.

Material and Methods

Study design and setting

This cross-sectional comparative study was conducted at the dental clinics of Faculty of Dentistry in Pharos University. The study was conducted between 2025–2026. All interviews and clinical examinations were performed within the university clinics after obtaining written informed consent. The Research Ethics Committee of Pharos University in Alexandria approved the study (Approval No. 482; Protocol PUA-REC-012).

Study population

Two independent adult CCC patient cohorts were included:

- **Group I (pre-treatment group):** patients scheduled to begin CCC during the academic year 2025–2026.
- **Group II (post-treatment /follow up group):** patients who had completed CCC during the previous two academic years.

Patients who received treatment outside the university clinics or who underwent only single-discipline care were excluded from the study.

Sampling technique and sample size

Convenience sampling was used. Sample size was calculated using G*Power software (version 3.1.9.4) based on a previously published difference in OHRQoL outcomes between treated and untreated patients. A minimum sample of 28 participants, with 14 participants in each group, was required to achieve 95% power at a 5% significance level. (10)

Data collection tools and procedures

Data were collected using two complementary assessment methods:

The Oral Health Impact Profile-14 (OHIP-14) questionnaire.(13) This validated instrument evaluates seven domains of OHRQoL, including functional limitation, physical pain, psychological discomfort, physical disability, psychological disability, social disability, and handicap. Each item was scored on a five-point Likert scale ranging from 0 (never) to 4 (very often), with total scores ranging from 0 to 56. Higher scores indicate poorer OHRQoL. Overall OHIP scores were summed and converted into percentages. OHRQoL was subsequently categorized into three levels based on predefined scoring thresholds: good (No or Low risk) (< 50%), moderate (50–75%), and Bad (High Risk) (> 75%).

Participants in Group 1 completed the questionnaire before initiation of treatment, whereas participants in Group 2 completed the same questionnaire at follow-up after completion of treatment.

A structured clinical follow-up examination

(Additional file 1)

In addition to the OHRQoL questionnaire, participants in Group 2 underwent a standardized clinical follow-up and radiographic examination using a structured diagnostic checklist specifically developed for CCC patients. The checklist included patient demographic data, medical history, medication use, dental history, oral hygiene practices, and parafunctional habits. Clinical examination was performed under standard infection control procedures using personal protective equipment, disposable examination materials, mouth mirrors, periodontal probes, explorers, cotton rolls, gauze, and sterilized diagnostic instruments.

The extra oral examination included assessment of facial symmetry, temporomandibular joint tenderness or clicking, lymph node status, masticatory muscle tenderness, and maximum mouth opening. Intraoral examination assessed the oral mucosa, gingival condition, tongue, floor of the mouth, salivary flow, gingival index, furcation involvement, and tooth mobility.

Dental status evaluation included assessment of oral hygiene, staining, calculus deposits, recurrent caries, root canal failure, crown or bridge failure, fractures, missing teeth, and pain or sensitivity. Prosthodontic evaluation included the presence and condition of fixed or removable prostheses, denture fit, prosthetic maintenance needs, and patient satisfaction.

Radiographic assessment used panoramic radiographs to evaluate periapical pathology and horizontal and vertical bone loss. Follow-up records also documented treatment outcome and patient compliance. Clinical and radiographic findings were used to support and validate the patient-reported OHRQoL findings.

Before the follow-up phase began, examiner calibration was carried out to ensure consistency in the clinical assessment performed by the four student researchers. All examiners independently evaluated the same three patients using the standardized follow-up checklist under faculty supervision. The findings recorded by each examiner were subsequently compared for both clinical and radiographic findings, and the level of agreement demonstrated sufficient inter-examiner consistency, confirming that the researchers were able to apply the examination criteria in a uniform manner before data collection commenced.

Statistical analysis

Data were analyzed using IBM SPSS version 24.0. Qualitative data were described using frequencies and percentages, while quantitative variables were summarized using means and standard deviations. Group comparisons were performed using Chi-square testing, and statistical significance was established at $p \leq 0.05$.

Results

A total of 28 participants were included in the study, with 14 participants in each group.

Table (1) shows the demographic characteristics of the two groups. The data show that they were largely comparable, indicating that the two cohorts were sufficiently similar for meaningful comparison. Males represented the majority of participants in both groups (92.9%), with no statistically significant difference in gender distribution between the groups ($p = 1.000$). The age of participants ranged from 21 to 39 years in Group 1 and from 24 to 63 years in Group 2. Although the mean age was higher in Group 2, this difference did not reach statistical significance ($p = 0.066$). Educational level, occupation, and marital status were similarly distributed between the two groups without statistically significant differences ($p > 0.05$). The only variable that differed significantly was their self-reported need for prosthetic dental appliances ($p = 0.001$), as most participants in Group 1 required fixed prosthetic rehabilitation, whereas the majority of Group 2 no longer required prosthetic treatment.

[Insert Table 1 here]

Regarding OHRQoL table (2) shows results which revealed marked differences between the two groups across all domains of the OHIP-14 questionnaire. In the domain of **functional limitation**, Group 1 participants reported substantially greater impairment than Group 2. Difficulty chewing was significantly more frequent in Group 1, where 50.0% reported experiencing this problem often or very often compared with none of Group 2 participants ($p < 0.005$). Concerns related to dental appearance were particularly

prominent in Group 1, with 85.7% reporting that their teeth noticeably did not look right and 100% reporting that oral problems affected their appearance, while almost all participants in Group 2 reported no such concerns ($p = 0.001$ and $p = 0.002$, respectively). Food impaction and halitosis were also significantly more common in Group 1 ($p < 0.05$).

Significant differences were also observed in the **physical pain** domain. Painful aching was reported often or very often by 92.8% of participants in Group 1 compared with only 7.1% in Group 2 ($p = 0.001$). Toothache was severe in 78.6% of Group 1 participants but absent in Group 2 ($p = 0.001$). Tooth sensitivity, sore gums, headaches, and discomfort during eating were all significantly more prevalent among Group 1 participants ($p < 0.05$), indicating that untreated oral conditions had a substantial effect on physical comfort.

Psychological distress showed one of the greatest contrasts between the two groups. Half of Group 1 participants reported frequent anxiety about their dental problems, and 78.6% stated they were constantly aware of their oral condition. In addition, 71.4% reported that their dental problems made them feel miserable, and 85.7% felt uncomfortable about their appearance. In contrast, almost all participants in Group 2 reported no psychological impact after treatment, with statistically significant differences across all variables in this domain ($p = 0.001$).

Physical disability was also significantly reduced in Group 2. Participants in Group 1 were more likely to report avoiding certain foods, difficulty brushing their teeth, inability to eat comfortably, avoiding smiling, and skipping meals because of oral problems. For example, 78.6% of Group 1 participants reported avoiding smiling often or very often, whereas none of Group 2 participants reported this problem after treatment ($p = 0.001$). Similarly, 64.3% of Group 1 participants reported difficulty eating because of oral problems compared with none in Group 2 ($p = 0.024$).

The **psychological disability** domain showed a similar pattern. Sleep disruption, anxiety, difficulty relaxing, depressive feelings, reduced concentration, and embarrassment about dental appearance were all significantly more common in Group 1 than in Group 2. Notably, 78.6% of Group 1 participants reported feeling embarrassed about the appearance of their teeth very often, whereas all Group 2 participants reported no embarrassment following treatment ($p = 0.001$).

Social disability and handicap were likewise significantly improved among treated participants. In Group 1, oral problems commonly affected social interaction, tolerance toward others, ability to perform daily tasks, and enjoyment of life. More than half of Group 1 participants reported avoiding social activities because of their oral condition, while no participants in Group 2 reported social limitations after treatment ($p < 0.05$). Group 1 participants also reported greater effects on general health perception, life satisfaction, and work performance than Group 2.

Table (2) Shows the distribution of participant's frequencies and percentages according to total level of OHIP score for each of the seven OHIP domains and for the overall OHIP level (Good, Moderate, Bad) across both groups (group I and II). It is noted that statistically significant differences are found between

the two groups in every domain ($p \leq 0.003$). In Group 1, most participants were classified within the moderate or high impact categories, while the majority of Group 2 participants were classified in the no or low impact category. For the total OHIP score, 64.3% of Group 1 participants had poor OHRQoL, compared with none in Group 2. Conversely, 92.9% of Group 2 participants had good OHRQoL compared with only 7.1% of Group 1 ($p = 0.001$), demonstrating a marked improvement in perceived oral health after comprehensive care.

[Insert Table 2 here]

[Insert Fig. 1 here]

At the clinical follow-up, Group 2 showed generally favorable treatment outcomes Fig. 2 shows the distribution of participants according to several clinical examination findings for group II during follow-up. Most participants had no relevant medical conditions and maintained regular tooth brushing habits. Extra-oral examination showed normal facial symmetry in all participants, while only one patient demonstrated temporomandibular joint tenderness. Intraoral examination revealed healthy gingival conditions in 78.6% of participants, no tooth mobility in all participants, and no furcation involvement. Assessment of general tooth condition showed fair or good oral hygiene in 92.8% of participants. Fixed prostheses were present in 92.9% of participants, and 85.7% expressed satisfaction with their prosthetic treatment. Radiographic evaluation supported these findings. Periapical pathology was absent in 71.4% of participants, horizontal bone loss was absent in 92.9%, and vertical bone loss was absent in 78.6% of participants.

[Insert Fig. 2 here]

Moreover, the overall clinical follow-up score demonstrated that 85.7% of Group 2 participants had excellent outcomes, 7.1% had good outcomes, and 7.1% had fair outcomes, with no patients classified as poor. These findings support the positive impact of CCC on both clinical oral health and patient-reported OHRQoL.

[Insert Fig. 3 here]

Discussion

The findings of the present study showed that patients in Group 2, who had previously completed comprehensive case care, reported noticeably better oral health–related quality of life than those in Group 1 who were still awaiting treatment. This difference was evident across all domains of the OHIP-14, suggesting that the benefits of comprehensive care extended beyond the clinical correction of oral problems to include improvements in comfort, confidence, and everyday function. These findings reinforce the growing recognition that treatment success in dentistry should not be judged solely by clinical indicators, but also by the extent to which patients feel that their oral health has improved in their daily lives. (5, 12)

The largest differences between the two groups were observed in the domains of physical pain and functional limitation. Patients awaiting treatment frequently reported discomfort while eating, tooth sensitivity, and persistent oral pain, whereas these complaints were uncommon among those who had already completed treatment. This pattern aligns with previous studies showing that untreated oral disease directly affects quality of life, particularly when pain interferes with basic daily activities such as eating and speaking, Slowik et al. found that periodontal disease was consistently associated with poorer OHRQoL, especially in the domains of pain and functional disability (15). A study conducted in Sri Lanka identified physical pain as the most prevalent complaint (16), while research from Germany highlighted functional limitation as the primary concern (17). In contrast, our results align closely with recent multicenter research in Egypt, which found that psychological discomfort and physical pain were the most significant burdens on OHRQoL among local patients (10). Similarly, studies have shown that periodontal disease can significantly affect patients' quality of life, with its impact sometimes extending beyond what can be identified through routine clinical and radiographic assessment alone (18). The improvement observed in the present study may therefore reflect the value of addressing multiple oral conditions through a coordinated treatment approach rather than treating isolated symptoms separately.

Psychological changes were equally important in the present study. Many patients in Group 1 expressed embarrassment about their dental appearance and reported that oral problems affected their social interactions. By contrast, most patients in Group 2 reported little or no psychological impact following treatment. This finding agrees with earlier research showing that dental rehabilitation can improve self-confidence and reduce social withdrawal.(19) This was in accordance with Aljohani et al., who reported that patients treated in a university-based comprehensive care program experienced significant improvements in psychological comfort after treatment(12). On the other hand, the findings of Moroianu et al. suggest that dental treatment improves more than oral health alone. As treatment progressed, patients tended to feel emotionally better, and many became less embarrassed and more confident in social situations. These benefits appeared early, likely because treatment relieved pain, restored appearance, and made eating, speaking, and smiling easier. However, deeper psychosocial concerns such as stigma, fear, and social integration were less responsive to treatment.(20) Improvements in appearance, speech, and chewing ability often influence how patients perceive themselves socially, and this may explain why the difference between the two groups was not limited to physical symptoms alone.

Clinical follow-up findings in Group 2 corroborated the patient-reported outcomes. Most treated patients showed stable restorations, satisfactory oral hygiene, and limited radiographic abnormalities at review. The consistency between subjective and objective findings supports the interpretation that the improvement in OHRQoL was accompanied by measurable improvement in oral health status. Similar observations have been reported in previous studies, in which favorable clinical outcomes were associated with better patient-reported quality of life after multidisciplinary treatment (12, 14, 16). This agreement between clinical and patient-based measures highlights the importance of combining both perspectives when evaluating treatment outcomes.

The present findings also emphasize the value of comprehensive care itself. Unlike single-discipline treatment, comprehensive case care aims to manage the patient as a whole by coordinating periodontal, restorative, endodontic, and prosthodontic treatment within one structured plan. Previous authors have suggested that interdisciplinary care improves long-term stability because it addresses the underlying causes of oral disease before definitive rehabilitation is completed.(2, 14) In the current study, the broad improvement across all OHIP domains suggests that patients may benefit not only from the treatment provided, but also from the continuity and organization of care that the comprehensive model offers.

A longitudinal design would have allowed stronger conclusions by measuring the same individuals before and after treatment, as seen in recent prospective cohorts evaluating student-led care.(12) However, because our study was conducted within the limited timeframe of an undergraduate research project, a cross-sectional comparison between current and previously treated patients was utilized as a practical first step. This design is a well-established method for assessing oral health impacts and providing preliminary evidence of treatment outcomes in specific populations. (5)

This approach allowed sufficient time for treatment outcomes to stabilize in Group 2, while establishing baseline data that could be further strengthened by longitudinal follow-up of Group 1 after treatment completion.

Some limitations should still be acknowledged. The small sample size and convenience sampling limit the ability to generalize the findings to wider populations, a common challenge in specialized clinical OHRQoL research (21). Another limitation is that the study compared two different cohorts, so differences between the groups that were not measured may have contributed to the observed results. However, using a validated OHRQoL instrument, applying standardized clinical assessment procedures, and calibrating the examiner before data collection helped ensure more consistent and reliable outcome measurements. (22, 23)

Taken together, these findings suggest that comprehensive care can improve oral health in ways that patients can genuinely feel and recognize in their everyday lives. The improvements in physical comfort, social confidence, and psychological well-being indicate that the benefits of multidisciplinary care go beyond what is captured by conventional clinical measures. These findings highlight the value of considering patients' lived experiences when evaluating treatment outcomes and of maintaining regular follow-up to preserve the improvements achieved through comprehensive care.

Conclusion

Within the limitations of this study, comprehensive case care (CCC) was associated with a marked improvement in oral health–related quality of life (OHRQoL). Patients who had completed treatment reported significantly better outcomes across all OHRQoL domains than those awaiting treatment, and these findings were supported by favorable clinical follow-up outcomes. Comprehensive care appears to provide benefits that extend beyond disease management to include meaningful improvements in patient well-being.

Recommendations

It is important to emphasize that we are not separate from the reality of rising service costs; therefore, we recommend adopting a comprehensive dental approach that prioritizes preventive care, long-term treatment planning, and cost-effective interventions. This can be supported by expanding access to free or low-cost care through dental schools and insurance coverage, alongside raising patient awareness of oral hygiene practices to reduce disease burden and overall treatment costs.

Routine assessment of OHRQoL and clinical follow-up should be incorporated into comprehensive dental care programs in faculty settings. Future research should include larger sample sizes and longitudinal follow-up of the same patients before and after treatment to provide stronger evidence regarding the long-term effects of CCC.

Strengths and Limitations

The study combined patient-reported outcomes with clinical and radiographic findings, providing a broader evaluation of treatment effect in a real multidisciplinary educational setting. However, the small sample size, convenience sampling, and cross-sectional design limit generalizability. Future longitudinal studies with larger samples would strengthen the evidence base.

Abbreviations

OHRQoL Oral health-related quality of life

CCC Comprehensive Care Cohorts

OHIP Oral Health Impact Profile

SPSS Statistical Package for the Social Sciences

Declarations

Ethics approval and consent to participate

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki. The Research Ethics Committee of Pharos University in Alexandria approved the study (Approval No. 482; Protocol PUA-REC-012). Participation was voluntary, and written informed consent was obtained from all participants before data collection.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Supplementary Materials

Not applicable

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Author Contribution

Conceptualization: M.I.A., E.M.B.; methodology: M.I.A., E.M.B.; data collection and curation: E.H.K, S.G., E.H.F., L.R.; analysis and interpretation of the data: M.I.A., writing original draft preparation: M.I.A., E.M.B., E.H.K, S.G., E.H.F., L.R.; writing-Review and editing: M.I.A., visualization: M.I.A.; supervision: M.I.A., E.M.B., All authors have read and agreed to the published version of the manuscript.

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Availability of data and materials

The datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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Tables

Table (1): Distribution of the studied sample regarding their basic demographic data.

	Group I		Group II		Test
	No	%	No	%	P value
Gender:	13	92.9	13	92.9	1.0
Male	1	7.1	1	7.1	N.S.
Female					
Age:	0	0	0	0	3.63
<18 years	14	100	8	57.1	0.068
18-40 years	0	0	5	35.7	N.S.
41-60	0	0	1	7.1	
>60					
Range	21-39		24-63		0.066
Mean $\pm$ SD	30.71 $\pm$ 6.64		41.14 $\pm$ 11.81		N.S.
Education Level:	0	0.0	0	0.0	
Illiterate	2	14.3	0	0.0	8.690
Primary	0	0.0	3	21.4	0.069
Preparatory	0	0.0	2	14.3	N.S.
Secondary	5	35.7	6	42.9	
Institute	7	50.0	3	21.4	
College					
Occupation:					
Professional	1	7.1	0	0.0	1.33
Administrative	2	14.3	2	14.3	0.855
Technical	1	7.1	1	7.1	N.S.
Laborer	9	64.3	9	64.3	
Unemployed	1	7.1	2	14.3	
Marital Status:					
Married	6	42.9	8	57.1	0.57
Single	8	57.1	6	42.9	0.449
Widowed or divorced	0	0.0	0	0.0	N.S.

Patient's needs for prosthetic dental appliances:					
None	0	0.0	12	85.7	21
Requires a fixed appliance	13	92.8	2	14.3	0.001*
Requires a partial mobility device	1	7.2	0	0.0	
Requires a complete mobility device	0	0.0	0	0.0	

P was significant if ≤ 0.05

N.S. = Not significant

** Significant difference at 0.05*

Table (2). OHIP-14 Domain and Overall Levels among Participants in Groups I and II

	Group I		Group II		test P value
	No.	%	No.	%	
Functional limitations					
No	0	0	13	92.9	25
Low	3	21.4	1	7.1	0.001*
Moderate	9	64.3	0	0	
High	2	14.2	0	0	
Physical pain					
No	0	0	11	78.6	20.8
Low	2	14.3	2	14.3	0.001*
Moderate	4	28.6	1	7.1	
High	8	57.1	0	0	
Psychological distress					25.3
No	0	0	12	85.7	0.001*
Low	1	7.1	2	14.3	
Moderate	1	7.1	0	0	
High	12	85.7	0	0	
physical disability					20.95
No	1	7.1	13	92.9	0.001*
Low	5	35.7	1	7.1	
Moderate	6	42.9	0	0	
High	2	14.3	0	0	
Psychological Disability					
No	0	0	14	100	28
Low	3	21.4	0	0	0.001*
Moderate	2	14.3	0	0	
High	9	64.3	0	0	
Social Disability					21
No	2	14.3	14	100	0.003*

Low	5	35.7	0	0	
Moderate	2	14.3	0	0	
High	5	35.7	0	0	
Disability					18.11
No	3	21.4	14	100	0.001*
Low	2	14.3	0	0	
Moderate	6	42.9	0	0	
High	3	21.4	0	0	
Total OHIP score					
Good OHIP	1	7.1	13	92.9	19.8
Moderate OHIP	4	28.6	1	7.1	0.001*
Bad OHIP	9	64.3	0	0.0	

Figures

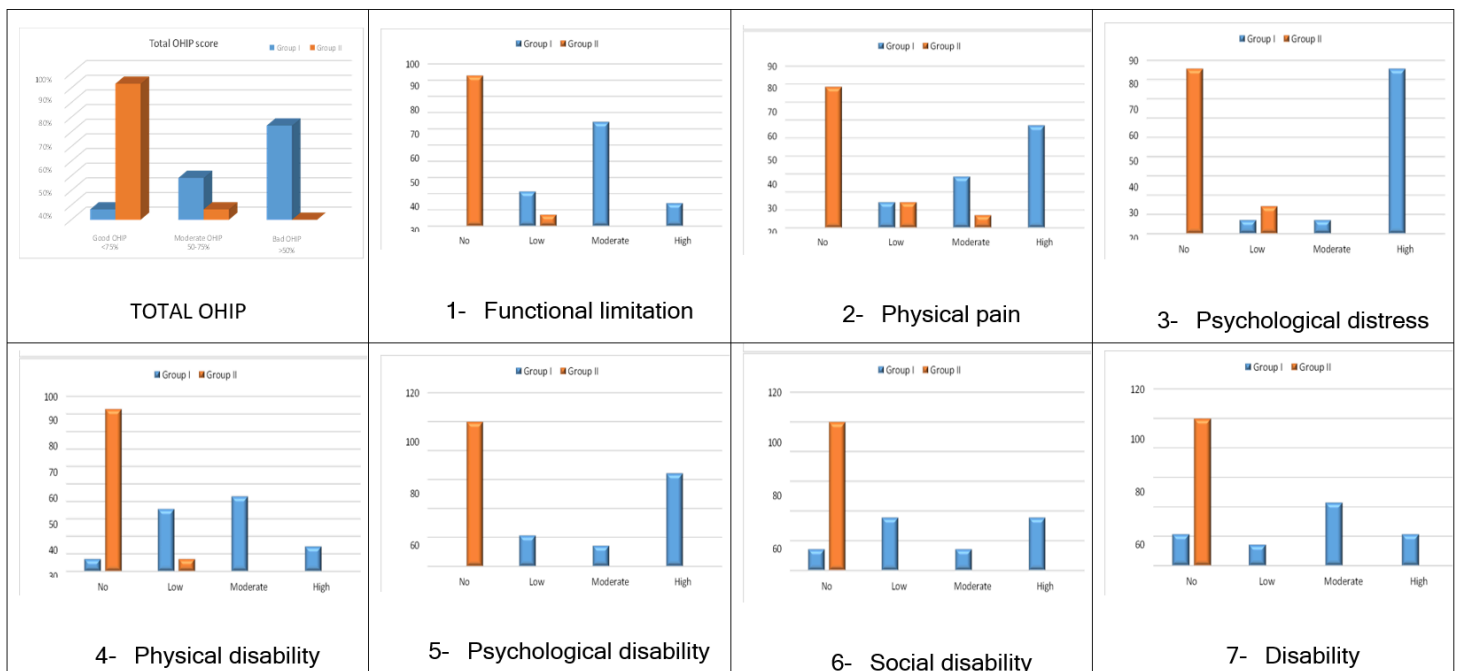


Figure 1

Distribution of Overall OHIP and Domain Levels Among Participants in Groups I and II.

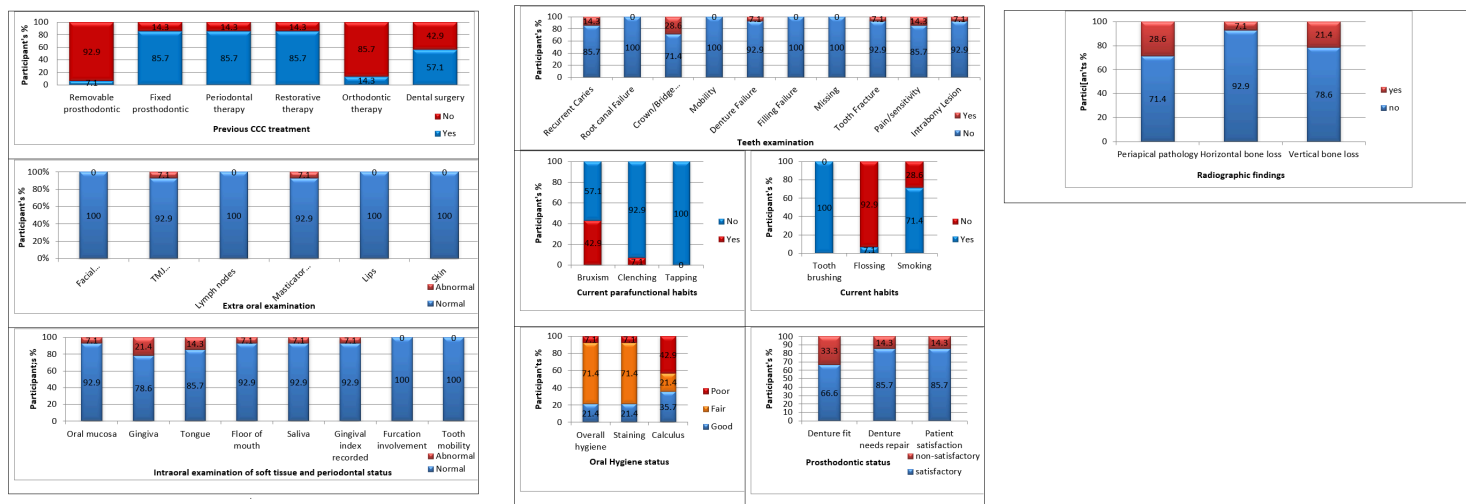


Figure 2

Clinical and Radiographic Findings During Follow-Up in Group II (n=14).

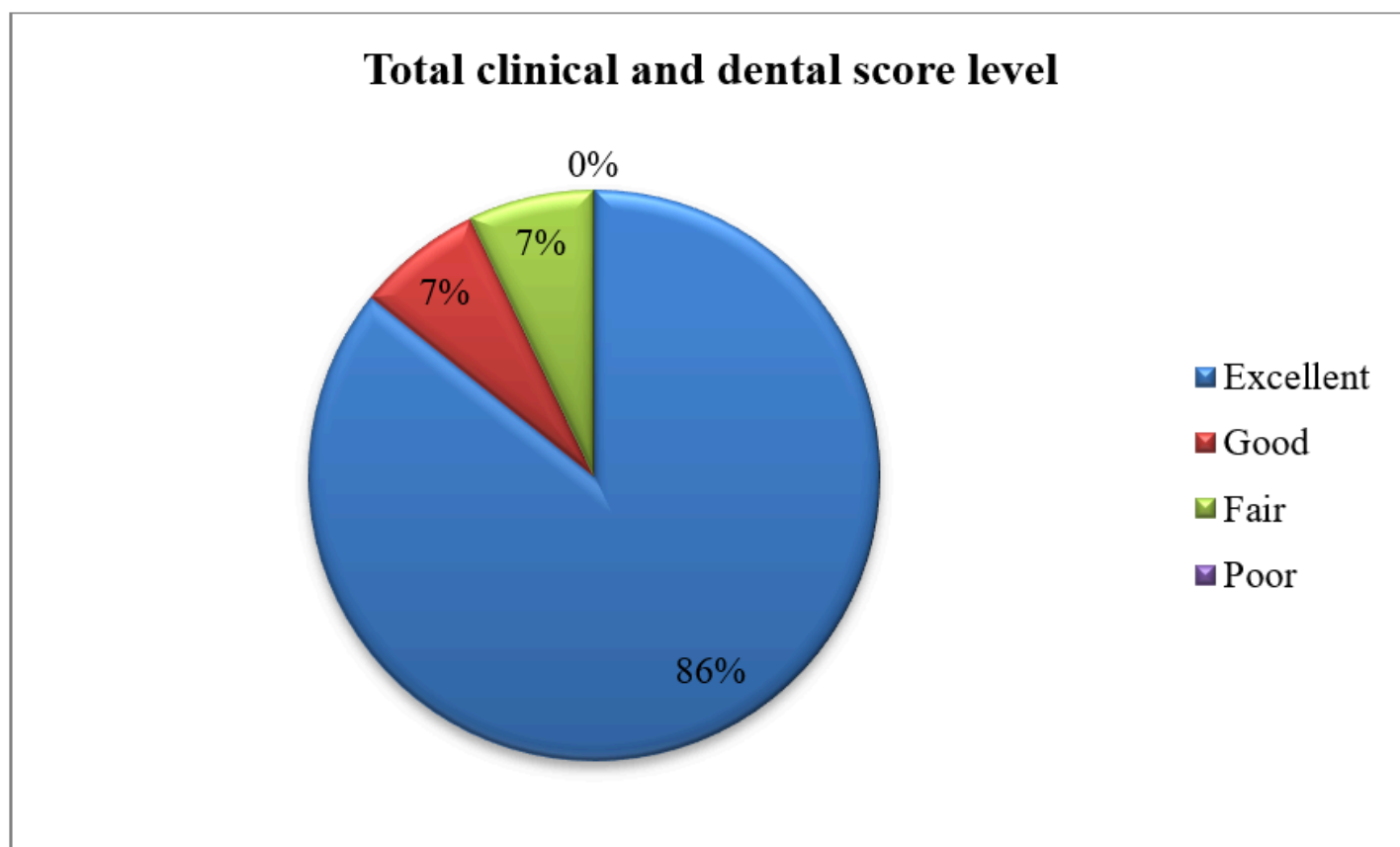


Figure 3

Distribution of the patients in group II regarding total score of diagnostic chart.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [Additionalfile1Followupchecklist.pdf](#)