

Oral Health-Related Quality of Life in Children and Young Adolescent Orthodontic Cleft Patients

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Objective: To evaluate and compare the oral health-related quality of life (OHRQoL) in Thai patients with cleft lip and palate and to evaluate parents' and their children's perceptions.

Material and Method: Child Oral Health Impact Profile (COHIP) questionnaire was used to evaluate OHRQoL of the patients and parents' perceptions of patients' OHRQoL. The subjects consisted of 140 cleft patients (aged 8-15 years) and their parents who visited the Department of Orthodontics, Khon Kaen University.

Results: COHIP scores in cleft patients were relatively high. No statistically significant differences were found for overall and subscales COHIP scores between gender and age groups (aged 8-11 and 12-15 years) of patients. Comparison among cleft types, overall COHIP and functional well-being subscales scores showed statistically significant differences ($p = 0.01$ and $p = 0.002$, respectively). Cleft lip with or without alveolus (CL/A) had higher overall and functional well-being subscale scores than unilateral and bilateral cleft lip and palate patients (CLP). Only self-image subscale scores were statistically significant differences between patients and parents at $p < 0.001$.

Conclusion: Young and adolescent patients with cleft lip and palate had generally positive oral health-related quality of life. Impacts of gender and age of patients on OHRQoL were similar. CL/A patients had more positive in overall oral health-related quality of life and functional well-being domains than CLP patients did. Parents had higher perceptions of self-image shown by their children than the children themselves.

Keywords: Cleft lip and palate, Oral health-related quality of life, Child Oral Health Impact Profile

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Oral cleft lip and palate disorders may need multiple corrective procedures over a period of time usually starting from infancy until late adulthood depending on their cleft-related defects such as malocclusion, hearing and speech disorders, impaired facial appearance and psycho-emotional problems. These reconstructive surgeries should not be defined solely in terms of repair and cure, but also extend to benefit the health and well-being of the children⁽¹⁾, since the outcomes after procedures can have an impact on their quality of life related to health⁽²⁾.

Oral health-related quality of life (OHRQoL) is one of specific measurement methods in evaluating health-related quality of life. It is a subjective evaluation of the individual's oral health, functional well-being, emotional well-being, expectations and satisfaction

with care, and sense of self⁽³⁾. In orofacial concern, OHRQoL can be assessed by the personal assessment of how functional factors, psychological factors, social factors, and experience of pain or discomfort, affect individuals' well-being^(4,5).

Chimrung et al⁽⁶⁾ studied Thai adolescents aged 12 to 17 years and found that the cleft condition affected health related quality of life in physical health with functional limitations and unsatisfactory emotional and social well-being. Patjanasoontorn et al⁽⁷⁾ reported quality of life in Thai five-year-old children with cleft lip and palate (CLP) by parents'/caregivers' perceptions in which family healthcare needs and mental health of the parents/caregivers were also evaluated. Interestingly, no study in Thailand has reported cleft lip and palate patients' oral health-related quality of life with the use of a self-reported instrument.

The objectives of this study were to evaluate OHRQoL in Thai children and young adolescent patients with oral clefts, examine the associations of gender, age and cleft type with patients' oral health-

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related quality of life and evaluate parents' and their children's perceptions.

Material and Method

Study population

The participants of this cross-sectional descriptive study were cleft patients and their parents at the Tawanchai Cleft Center, Khon Kaen University, Khon Kaen, Thailand. Cleft patients aged between eight and 15 years during orthodontic treatment and availability of parents or care-givers of the patient were set as inclusion criteria whilst patients with a systemic disease, general disability, and other craniofacial syndrome were excluded from the study. Patients who had a history of orofacial surgery within the last three months or were scheduled for an orofacial surgery in the next two months and illiterate were also omitted. One hundred forty pairs of cleft patient and their parent were participated in the study.

Data collection

Eligible patients and their parents were contacted and requested to participate in the study by an invitation letter. All participants were asked to complete the questionnaire in separate rooms for patient and parent at the Orthodontic Clinic, Khon Kaen University on the same day during their routine orthodontic appointment.

Instrument and measurement

Oral health-related quality of life was evaluated by using Child Oral Health Impact Profile questionnaire (COHIP)^(8,9). Cross-cultural adaptation⁽¹⁰⁾ of the questionnaire was done for adaptation the English COHIP to Thai language. Preliminary trial for the final adjustment of the Thai COHIP was performed prior to the major study with 10 patients aged 8 to 15 years and their parent(s). Internal consistency of overall and subscale score of COHIP in the present study was tested on all patients and parents with Cronbach's alpha coefficient.

Child Oral Health Impact Profile (COHIP) consists of two parallel self-report questionnaires for patients and parents, asking about child's experience of the event in the past three months. The questionnaire has 34 items on five conceptual domains: oral health, functional well-being, social/emotional well-being, school environment and self-image. Items were scored on a five-point scales (from 1 = never to 5 = almost all of the time), with another additional response option of 'I don't know'. The scores on negatively formulated items

were reversed before scoring. Higher COHIP scores reflect more positive OHRQoL whilst lower scores reflect lower OHRQoL. Subscale scores were calculated by summing the responses of the items specific to the subscale, and subscales were summed for the overall OHRQoL scores.

The 'I don't know' response was recorded as missing. Participants' responses who did not answer at least 75% of the items were not included in the analysis⁽⁸⁾. Scores could range from 0 to 170 for the overall assessment. If more than two-thirds of the items in a subscale were missing, the subscale and the overall score were set to missing. If fewer items were missing for a subscale, the individual average score of available items was used and the sum of the subscale was calculated^(8,11).

Statistical analysis

Descriptive statistics that included mean, standard deviation and percentage were used to present the general information of the subjects. Overall COHIP and subscale scores between gender and age groups were compared to an independent t-test. Analysis of variance was used to compare differences among cleft types. Paired t-tests were used to compare differences between patients' and parents' perceptions of patients' oral health-related quality of life. All *p*-values were two-tailed with 95% confidence intervals (95% CI). Statistical analysis was performed with the Statistical Package for Social Science Version 19.0 for Windows (SPSS, Inc., Chicago, Illinois, USA).

This research project received approval from the Ethics Committee on Human Research, Khon Kaen University (HE572067).

Results

Internal consistencies of the overall scale for patients and parents and social-emotional subscale responses from parents were excellent with Cronbach's alpha 0.90, 0.94 and 0.092, respectively. Internal consistency was acceptable to good in most subscales for patients and parents, except that school environment subscale from patients' data was questionable (Cronbach's alpha 0.63).

General data of the subjects are shown in Table 2. There was an equal number of males and females (*n* = 70, 50%) and slightly greater numbers in the young adolescent group (*n* = 75, 53.6%) than the child group (*n* = 65, 46.4%). Mean age of patients and parents were 11.76 years (*SD* = 2.29) and 42.17 years (*SD* = 9.66), respectively.

Table 1. Internal consistency of the overall and subscales COHIP of the patients and parents

COHIP	Cronbach's alpha	
	Patients (n = 140)	Parents (n = 140)
Overall COHIP (34 items)	0.90	0.94
Oral symptom (10 items)	0.77	0.84
Functional well-being (6 items)	0.76	0.82
Social emotional (8 items)	0.87	0.92
School environment (4 items)	0.63	0.76
Self image (6 items)	0.85	0.79

Table 2. General characteristic of the subjects

Subjects (n = 140)	n	%
Gender of patients		
Male	70	50.0
Female	70	50.0
Age group of patients		
Child (aged 8-11 years)	65	46.4
Young adolescent (aged 12-15 years)	75	53.6
Cleft type of patients		
Cleft lip/alveolus (CL/A)	30	21.4
Unilateral cleft lip and palate (UCLP)	79	56.5
Bilateral cleft lip and palate (BCLP)	29	20.7
Isolated cleft palate (CP)	2	1.4
Parents' characteristics		
Fathers	25	17.9
Mothers	89	63.6
Others	26	18.5

Overall and subscale scores of the patients' COHIP are shown in Table 3. The mean overall score of patients was 127.8. All subscale scores of patients' COHIP had maximum scores whilst floor scores were only found in self-image subscale.

Patients' COHIP scores classified by gender and age groups are presented in Table 4 and 5. Girls had higher scores than boys in every subscale and overall COHIP. Children scored higher than adolescent patients in overall COHIP, functional well-being and school environment subscales. No statistical difference of COHIP scores was found between gender and age groups of the patients.

Since there were only two subjects in the CP group, that group was excluded from the statistical comparisons of COHIP scores among the cleft types, so only CL/A, UCLP and BCLP groups were included

(Table 6). Statistical differences of overall COHIP and functional well being subscale scores were found among cleft types (p -value = 0.01 and 0.002, respectively). Post hoc pairwise comparison found statistical differences between CL/A to UCLP and CL/A to BCLP for both overall COHIP and functional well being subscale scores (Table 7); p -values were 0.02 (mean difference 9.72; 95% CI 1.05-18.38) and 0.02 (mean difference 11.43; 95% CI 0.91-21.94) for overall COHIP between CL/A to UCLP and CL/A to BCLP, respectively. In the functional well-being subscale, Bonferrini test gave p -values = 0.009 (mean difference 2.75; 95% CI 0.55-4.95) and p -value = 0.004 (mean difference 3.62; 95% CI 0.95-6.29) for comparison between CL/A to UCLP and CL/A to BCLP, respectively.

Table 8 shows the overall COHIP scores and subscale scores of patients and parents. Subscales scores of parents were more than patients' scores on overall COHIP, oral symptom, school environment and self-image. Paired-sample t-test of self-image subscale scores between patients and parents gave p -value <0.001 (mean difference -1.48; 95% CI -2.40-(-0.54)).

Discussion

Patients' OHRQoL

The maximum overall score that participants could obtain on the COHIP was 170. The mean overall score of patients was 127.8 with a range of 85-168 and 95% CI as 124.93 to 130.66. All subscale scores of patients' COHIP had ceiling scores (minimum effect on OHRQoL) whilst the floor score (maximum effect on OHRQoL) was only found in self-image subscale.

In this study, mean scores in every subscale excepting self-image were more than 70% of the recorded maximum scores. This indicated that the OHRQoL was relatively high in cleft patients, which is consistent with other studies about OHRQoL in cleft patients^(9,12). A study of quality of life in Thai cleft patients aged 8-18 years by Augsornwan et al found similar results of high OHRQoL among cleft patients⁽¹³⁾.

When compared with non-cleft populations, most previous studies have found some negative impacts of orofacial cleft on overall or subscale of OHRQoL in cleft patients⁽¹⁴⁻¹⁶⁾. From the result of the present study, it could be argued that in spite of the CL/P conditions, children and young adolescents still had a positive OHRQoL whilst the self-image subscale was the most affected in the patient's OHRQoL.

Influence of gender on OHRQoL

In the present study, girls had slightly higher

Table 3. Overall and subscales COHIP scores of patients

COHIP (maximum possible scores)	Patients' COHIP scores (n = 140)			
	Mean \pm SD	95% CI	Min	Max
Overall COHIP (170)	127.80 \pm 17.16	124.93-130.66	85	168
Oral symptoms (50)	35.89 \pm 6.10	34.87-36.91	22	50
Functional well-being (30)	23.59 \pm 4.37	22.86-24.33	12	30
Social-emotional (40)	31.25 \pm 6.13	30.23-32.29	11	40
School environment (20)	17.29 \pm 2.69	16.84-17.74	8	20
Self-image (30)	19.75 \pm 5.50	18.83-20.67	6	30

Table 4. Overall and subscales COHIP scores comparisons by gender

COHIP (maximum possible scores)	COHIP scores (mean \pm SD)		Mean difference (95% CI)	p-value
	Males (n = 70)	Females (n = 70)		
Overall COHIP (170)	126.11 \pm 17.74	129.47 \pm 16.52	-3.36 (-9.09-2.37)	0.24
Oral symptoms (50)	35.66 \pm 6.32	36.13 \pm 5.91	-0.48 (-2.52-1.57)	0.64
Functional well-being (30)	23.09 \pm 4.60	24.10 \pm 4.08	-1.01 (-2.46-0.45)	0.17
Social-emotional (40)	31.10 \pm 5.91	31.42 \pm 6.40	-0.32 (-2.28-1.73)	0.75
School environment (20)	17.16 \pm 2.70	17.42 \pm 2.70	-0.27 (-1.17-0.63)	0.55
Self-image (30)	19.10 \pm 5.45	20.39 \pm 5.51	-1.28 (-3.11-0.55)	0.16

Table 5. Overall and subscales COHIP scores comparisons by age groups

COHIP (maximum possible scores)	COHIP scores (mean \pm SD)		Mean difference (95% CI)	p-value
	8-11 year (n = 65)	12-15 year (n = 75)		
Overall COHIP (170)	127.99 \pm 18.60	127.63 \pm 15.94	0.35 (-5.42-6.13)	0.90
Oral symptoms (50)	35.86 \pm 6.00	35.93 \pm 6.23	-0.07 (-2.12-1.99)	0.98
Functional well-being (30)	23.70 \pm 4.73	23.51 \pm 4.06	0.18 (-1.29-1.64)	0.81
Social-emotional (40)	31.58 \pm 6.72	30.97 \pm 5.61	0.61 (-1.45-2.67)	0.56
School environment (20)	17.32 \pm 2.81	17.27 \pm 2.60	0.06 (-0.85-0.96)	0.90
Self-image (30)	19.52 \pm 6.13	19.95 \pm 4.92	-0.42 (-2.30-1.46)	0.65

scores and more positive OHRQoL than boys in every subscale and overall COHIP, similarly with previous studies^(9,15,17). This result is consistent finding with a study conducted with Iranian cleft patients where girls were more affected than boys in emotional well-being subscales⁽¹⁸⁾.

Gender affects a child's biologic, personal, and social development in a given society and culture. In general, there are relationships between gender and HRQoL⁽⁵⁾. Despite the overall consensus of association between females, particularly those with oral clefts, and

sensitivity about the factors related to HRQoL^(5,19,20), there was no strong evidence in this study.

Influence of age on OHRQoL

In the present study, the child and young adolescent group had identical overall COHIP and all subscale scores. Similar results were found in previous studies of OHRQoL of children and adolescent cleft patients in the United State⁽¹⁶⁾ and Iran⁽¹⁸⁾.

By contrast, few studies have reported differences in OHRQoL among age groups. Bos and

Table 6. Comparison of COHIP scores among cleft types

COHIP (maximum possible score)	COHIP scores (mean \pm SD)			F	p-value
	CL/A (n = 30)	UCLP (n = 79)	BCLP (n = 29)		
Overall COHIP (170)	135.59 \pm 15.06	125.87 \pm 17.42	124.16 \pm 16.08	4.49	0.01*
Oral symptoms (50)	37.56 \pm 4.70	35.10 \pm 6.43	36.44 \pm 6.14	1.94	0.15
Functional well-being (30)	25.92 \pm 3.57	23.17 \pm 4.43	22.29 \pm 4.32	7.27	0.002*
Social-emotional (40)	33.09 \pm 5.52	30.99 \pm 6.22	29.68 \pm 6.18	0.10	0.09
School-environment (20)	18.07 \pm 2.07	17.09 \pm 2.85	17.07 \pm 2.73	1.58	0.21
Self-image (30)	20.96 \pm 5.96	19.53 \pm 5.28	18.68 \pm 5.38	1.35	0.26

* Statistically significant difference at p -value <0.05

Table 7. Post hoc pairwise comparison between cleft types

COHIP (maximum scores)	COHIP scores (mean \pm SD)			Mean difference (95% CI)	p-value
	CL/A (n = 30)	UCLP (n = 79)	BCLP (n = 29)		
Overall COHIP (170)	135.59 \pm 15.06	125.87 \pm 17.42	-	9.72 (1.05-18.38)	0.02*
	135.59 \pm 15.06	-	124.16 \pm 16.08	11.43 (0.91-21.94)	0.02*
Functional well-being (30)	-	125.87 \pm 17.42	124.16 \pm 16.08	1.71 (-7.06-10.48)	1.00
	25.92 \pm 3.57	23.17 \pm 4.43	-	2.75 (0.55-4.95)	0.009*
	25.92 \pm 3.57	-	22.29 \pm 4.32	3.62 (0.95-6.29)	0.004*
-	23.17 \pm 4.43	22.29 \pm 4.32	0.87 (-1.35-3.10)	1.00	

* Statistically significant difference at p -value <0.05

Table 8. Overall and subscale COHIP scores and differences between patients and parents

COHIP (maximum possible score)	COHIP scores (mean \pm SD)		Mean difference (95% CI)	p-value
	Patients (n = 140)	Parents (n = 140)		
Overall COHIP (170)	127.80 \pm 17.16	130.06 \pm 20.55	-2.43 (-5.23-0.36)	0.08
Oral symptoms (50)	35.89 \pm 6.10	36.39 \pm 7.08	-0.80 (-1.93-0.33)	0.16
Functional well-being (30)	23.59 \pm 4.37	23.25 \pm 4.91	0.35 (-0.38-1.08)	0.34
Social-emotional (40)	31.25 \pm 6.13	31.12 \pm 7.21	0.14 (-0.90-1.19)	0.79
School environment (20)	17.29 \pm 2.69	17.64 \pm 2.98	-0.34 (-0.72-0.02)	0.06
Self-image (30)	19.75 \pm 5.50	21.19 \pm 5.58	-1.48 (-2.40-(-0.54))	<0.001 *

* Statistically significant difference at p -value <0.05

Prahl⁽⁹⁾ reported that Dutch cleft patients aged 12-15 years scored significantly lower statistically on the emotional well-being and oral symptoms subscales of COHIP than the younger group. Broder et al⁽¹⁷⁾ also reported lower emotional well-being in cleft patients aged 14-19 years than younger cleft patients in USA.

Wogelius et al⁽²¹⁾ suggested that cleft lip and

palate was a chronic disorder which allows the children time to adapt to their situation. A previous study found that Thai adolescent CLP patients were well-adjusted psychosocially and able to cope with their handicap⁽⁶⁾. In contrast, Correa et al⁽²²⁾ suggested that emotional and functional well-being dimensions were the most affected OHRQoL in children and adolescent with cleft

lip and palate, respectively; whilst social emotional dimension was the least affected dimension.

The reason that there was no difference in OHRQoL between children and young adolescent in the present study might be because of the narrow age range encompassing the two subject groups when the greater differences might have been in comparison more distinctive age groups of children and adults both having clefts.

Influence of cleft type on OHRQoL

In the current study, comparison of OHRQoL among cleft types was done with only three cleft types-CL/A, UCLP and BCLP. Statistically significant differences were found between cleft types in overall COHIP and functional well-being subscale. Post hoc pairwise comparison suggested that CL/A patients had higher overall COHIP and functional well-being domain than patients with UCLP and BCLP. Concerning total 170 scores of an overall COHIP and total 30 scores of functional well-being subscale, these statistically significant differences may not have an important effect to the patients' general well-being.

Although, consideration of cleft types, when evaluating OHRQoL might be important because differences in types of cleft had an affective difference in treatment provided, experiences of oral ill-health, pain and discomfort might have some effects on OHRQoL of the patients^(23,24). However, the significant difference in OHRQoL among cleft types was not found in this study.

Comparison between patients' and parents' perceptions on patient's OHRQoL

In the present study, OHRQoL in cleft patients was relatively high in both patients' and parents' perceptions. The mean overall scores of the patients and parents' perceptions were 127 and 130, respectively. A statistically significant differences between patients' and their parents' perception were found in self-image subscale. However, the mean of difference (-1.48) for the subscale comparing patients' and their parents' perceptions of self-image and the related CI (-2.40 to -0.54) suggested that the statistically significant differences might not represent any significance in practical terms concerning the respective perceptions of self-image.

In Dutch subjects⁽⁹⁾ with the same ages as the current study, there were statistically significant differences between patients and parents in oral symptom, emotional well-being, school and peer

interaction subscales. However, a small amount of the difference in mean scores between the two groups was reported in the Dutch study.

Other studies in children with craniofacial conditions reported no difference between patients and parents^(25,26). In cleft patients, Ward et al⁽¹⁶⁾ reported no difference between patients' and parents' perceptions of their child's OHRQoL in any subscales and overall COHIP.

It is important to consider the child's caregiver(s) when discussing OHRQoL because although a valid method can be used to evaluate child's OHRQoL, it is the caregiver(s) who ultimately needs to understand how to prevent health problems, how to educate the child about the facts of their problems, and how to assess if there is a problem that needs attention⁽⁵⁾. From the result of the current study, parents' perceptions of their child's OHRQoL did not differ from the child themselves. So, when data about patient's OHRQoL cannot be directly achieved from the child, indirect data from the parents may be useful to access the patient's OHRQoL.

Conclusion

- 1) Patients with cleft lip and palate had generally positive oral health-related quality of life.
- 2) Impact of gender and age of patients on oral health-related quality of life were similar.
- 3) Patients with cleft lip with/without alveolus had more positive overall COHIP and functional well-being domains than unilateral and bilateral cleft lip and palate patients. However, in general, the type of clefts did not have an important effect to patients' oral health-related quality of life.
- 4) Parents had higher perceptions of self-image shown by their children than the children themselves, but with only small ranges of difference in overall patients' and parent's perceptions of their child oral health-related quality of life.

What is already known on this topic ?

In general, patients with cleft lip and cleft palate have positive oral health-related quality of life. Previous studies found some impactions of gender, age and cleft type on patients' OHRQoL.

What this study adds ?

Thai children and young adolescent patients with cleft lip and palate in Tawanchai Cleft Center had positive oral health-related quality of life. Self-image subscale was the most affected in the patient's

OHRQoL. No influence of gender, age and cleft type on OHRQoL in this group of patients.

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Potential conflicts of interest

None.

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คุณภาพชีวิตที่สัมพันธ์กับสุขภาพช่องปากในผู้ป่วยจัดฟันเด็กและวัยรุ่นตอนต้นที่มีภาวะปากแหว่งเพดานโหว่

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วัตถุประสงค์: เพื่อประเมินและเปรียบเทียบคุณภาพชีวิตที่สัมพันธ์กับสุขภาพช่องปากในผู้ป่วยไทยที่มีภาวะปากแหว่งเพดานโหว่และผู้ปกครองและประเมินการรับรู้ของผู้ปกครองต่อคุณภาพชีวิตที่สัมพันธ์กับสุขภาพช่องปากของผู้ป่วย

วัสดุและวิธีการ: แบบสอบถาม Child Oral Health Impact Profile (COHIP) ถูกใช้เพื่อทำการประเมินคุณภาพชีวิตที่สัมพันธ์กับสุขภาพช่องปากของผู้ป่วยและการรับรู้ของผู้ปกครองต่อคุณภาพชีวิตที่สัมพันธ์กับสุขภาพช่องปากของผู้ป่วย กลุ่มตัวอย่างประกอบด้วยผู้ป่วยปากแหว่งเพดานโหว่อายุ 8-15 ปี จำนวน 140 คน และผู้ปกครองของผู้ป่วยจากภาควิชาทันตกรรมจัดฟัน มหาวิทยาลัยขอนแก่น

ผลการศึกษา: ผู้ป่วยมีคะแนน COHIP ที่ค่อนข้างสูง ไม่พบความแตกต่างอย่างมีนัยสำคัญทางสถิติของคะแนนรวมและคะแนนในมิติต่างๆ ของ COHIP ระหว่างเพศและช่วงอายุของผู้ป่วย (อายุ 8-11 ปี และ 12-15 ปี) การเปรียบเทียบระหว่างชนิดของปากแหว่งเพดานโหว่พบว่า จากค่าคะแนนในมิติต่างๆ ของ COHIP มีความแตกต่างอย่างมีนัยสำคัญทางสถิติระหว่างชนิดของปากแหว่งเพดานโหว่ในคะแนนรวมและคะแนนมิติด้านการทำงาน ($p = 0.01$ และ $p = 0.002$ ตามลำดับ) ผู้ป่วยที่มีภาวะปากแหว่งโดยไม่มีเพดานโหว่ร่วมด้วยมีคะแนนคุณภาพชีวิตโดยรวมและคะแนนมิติด้านการทำงานสูงกว่าผู้ป่วยที่มีภาวะปากแหว่งและเพดานโหว่ข้างเดียวและสองข้างอย่างมีนัยสำคัญทางสถิติ คะแนนในหัวข้อมิติภาพลักษณ์แห่งตนระหว่างผู้ป่วยและผู้ปกครองมีความแตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ $p < 0.001$

สรุป: ผู้ป่วยเด็กและวัยรุ่นตอนต้นที่มีภาวะปากแหว่งเพดานโหว่มีคุณภาพชีวิตที่สัมพันธ์กับสุขภาพช่องปากในทิศทางที่ดี เพศและอายุของผู้ป่วยมีผลกระทบต่อคุณภาพชีวิตที่สัมพันธ์กับสุขภาพช่องปากของผู้ป่วยเช่นเดียวกัน ผู้ป่วยปากแหว่งที่ไม่มีเพดานโหว่ร่วมด้วย มีคุณภาพชีวิตที่สัมพันธ์กับสุขภาพช่องปากโดยรวมและมิติด้านการทำงานดีกว่าผู้ป่วยที่มีภาวะปากแหว่งเพดานโหว่ การรับรู้ของผู้ปกครองในมิติด้านภาพลักษณ์แห่งตนของผู้ป่วยสูงกว่าการรับรู้ที่ผู้ป่วยมีต่อตนเอง