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## Quality of Life Related to Oral Health, Speech and Social Wellbeing Among the Children with Cleft Lip and Palate---A Literature Review

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**Abstract:** Cleft lip and palate (CL/P) is most common congenital deformity and also present with many syndrome condition. Child with CL/P face difficulty in early breast feeding due to improper lip seal and nasal regurgitation, thus compromising nutrition of new born. Patient with oro-facial cleft deformity needs to be treated at right time and at right age to achieve functional and esthetic wellbeing. It affects physical health, social health and language development of child. The birth rate of clefts was found to be 1.09 for every 1000 live births.

**Methods-** A systematic literature review is planned to find out the quality of life related to oral health and social wellbeing among the children with cleft lip and palate.

**Electronic search to collect Literature-** The following electronic databases are searched: ProQuest, PubMed, the British Nursing Index and the Cumulative Index to Nursing & Allied Health Literature (CINHAL) and journal available in library.

**Result-** The studies shows that QOL of cleft lip and palate child is affected in the domain of physical, mental, social and language section.

**Keywords:** cleft lip, quality of life, oral health, Social wellbeing.

### 1. INTRODUCTION

Quality of life is directly affected to child who having cleft lip and palate. Cleft lip and cleft palates are major birth defect or congenital anomalies that occur in the child all over the world. In which a baby's lip and mouth do not form properly during pregnancy. Together, these birth defects commonly are called "oro facial clefts".

A cleft lip and/or palate are one of the most common birth defects in the world. A cleft usually occurs in the first So that with a cleft lip with or without a cleft palate or a cleft palate alone often have problem with feeding, speaking clearly, and can have ear infections. They also might have hearing problems and problems with teeth facing by children.

### 2. METHODS OF COLLECTING LITERATURE

The following electronic databases are searched: ProQuest, PubMed, Scopus, the British Nursing Index and the Cumulative Index to Nursing & Allied Health Literature (CINHAL) and journal available in library.

### 3. LITERATURE

#### Abstract-1

#### Quality of life in patients with cleft lip and palate after operation.

#### BACKGROUND:

Cleft lip and cleft palate are the most common craniofacial anomalies. Srinagarind Hospital has 150-200 cases each year. The operating process of care requires continuity of care involving a multidisciplinary team. When the patients go to hospital for an operation they experience pain, limited activity and also food is very different from normal life. When attending school they suffer speech articulation problems and feel shy and isolated, which has a detrimental effect on their life style and quality of life.

**OBJECTIVE:**

The main purpose of the study is to study quality of life in patients with cleft lip and palate after operation.

**MATERIAL AND METHOD:**

The present study is descriptive research using qualitative and quantitative approaches. The studied population were patient's age 8-18 years old who were admitted at 3C Ward and Outpatient Department, Srinagarind Hospital. 33 patients were interviewed for the quantitative approach. Guideline for in-depth interview with 15 patients was used for the qualitative approach. Quantitative data were analyzed and presented in frequency, percentage and standard deviation. The qualitative data were analyzed through content analysis.

**RESULTS:**

Patients consider their QOL is high level, but in detail they still worry about self concept psychological well-being. From in-depth interview patients would like to get further treatment to minimize their scar as soon as possible.

**CONCLUSION:**

Patients consider their quality of life as high level, but they would like to get further treatment.

**Abstract-2 Oral health-related quality of life in children with cleft lip and palate.**

Considering the essential need for oral health-related quality-of-life measures for patients with craniofacial malformations, the current study aimed to investigate the oral health-related quality of life of Iranian patients with cleft lip and palate. Fifty children referred to Cleft lip/Palate Research Center of Mashhad Dental School (Iran) were recruited. Participants were asked to complete the Child Oral Health Impact Profile questionnaire. The questionnaire comprised 38 items and was divided over 5 subscales. The scores on all subscales were compared with regard to patients' age, sex, and type of cleft. A significant difference between boys and girls was found on the subscale "emotional well-being" ( $P = 0.027$ ). There was no significant difference between 8- to 12-year-old patients and those older than 12 years. Also, no significant difference was found between bilateral and unilateral cleft lip and palate patients regarding mean score of Child Oral Health Impact Profile questionnaire and its subscales. Oral health-related quality of life of cleft lip and palate patients did not change with patients' age. Also, the impact of unilateral and bilateral clefts on OHRQoL was similar. Quality of life of girls was more affected by oral health.

**Abstract-3**

**Measuring the impact of quality of life of children treated for orofacial clefts: a case-control study.**

**OBJECTIVE:**

The aim of this study was to assess the quality of life (QoL) of children previously treated for cleft lip and/or palate (CL/P) and compare with non-cleft children.

**METHOD:**

A case-control study with 70 children between 5 and 12 years old was carried out. The case group consisted of 35 individuals previously treated for non-syndromic CL/P and presently receiving assessment at a rehabilitation hospital in Brazil. The children had received primary surgical treatment for CL/P reconstruction during early childhood. The control group consisted of 35 healthy children selected to ensure close similarity to the cleft group in age, gender and socioeconomic status. QoL was measured using the AUQEI questionnaire.

**RESULTS:**

Cleft lip and palate had no significant influence on the QoL in children ( $p = 0.44$ ). A higher percentage of the cleft lip and palate group of children reported a lower QoL than the cleft lip or cleft palate groups. Gender had no significant difference on the quality of life in CL/P children ( $p = 0.2$ ) and in control group ( $p = 1.0$ ).

**CONCLUSION:**

The QoL in children with CL/P was found to be similar to the non-cleft group. Our results confirm that clefts repaired during earlier childhood associated with a health care program, including psychological support, is beneficial for CL/P children.

#### **Abstract-4**

##### **Quality of life and its influential factors of children and adolescents with congenital cleft lip and palate].**

##### **PURPOSE:**

To investigate the quality of life of children undergoing cleft lip or and palate repair as well as the influential factors of the quality of life, and provide theoretical foundation for future studies such as psychological interventions.

##### **METHODS:**

Totally 164 children and young adolescent patients with cleft lip and palate undergoing maxillofacial surgery and orthodontic treatment in Xuzhou Stomatology Hospital were selected as experimental group, and 102 normal children and young adolescents were selected as control group. Both groups were investigated by general information questionnaire and child and adolescents' quality of life scale (CAQOL). The results were analyzed and the influential factors on quality of life were evaluated by multivariate regression analysis with SPSS 19.0 software package.

##### **RESULTS:**

The overall CAQOL scores and most of the subscale scores (teacher-student relationship, peer relationships, parent-child relationship, self-awareness, physical discomfort, negative emotions, attitude about homework, access to transportation from home, extra curricular activities, self-esteem) in the experimental group were significantly lower compared with the control group ( $P < 0.05$ ). Single factor analysis of the quality of life showed that there was no significant difference between gender distribution; on the contrary, residential areas, parents' level of education, the main caregivers, family income and types of the disease had significant difference ( $P < 0.05$ ). Multiple linear regression equation showed that mother's education level of patients, cleft lip and palate category, family income, the main caregivers and residential areas were the important influential factors on children' quality of life. Among them, the type of disease was the most important influential factor ( $\beta = 0.260$ ), followed by mother's education level ( $\beta = 0.215$ ).

##### **CONCLUSIONS:**

The quality of life of children with cleft lip/palate is poor. Patients' scores of CAQOL are closely related with mothers' education level, type of cleft lip/palate, family income, the main caregivers and residential areas.

#### **Abstract-5**

A Comparative study regarding Speech and language development in toddlers with and without cleft palate. the effect of early palate closure on speech and language development in children with cleft palate. where University Medical Center Groningen, Cleft Palate Team (The Netherlands). Forty-three toddlers with cleft palate and thirty-two toddlers without cleft palate were analyzed with standardized tests for language comprehension and language production. Moreover articulation and hyper nasality were examined by trained speech therapists. Found that language comprehension, language production and articulation there were no significant differences between the children with and without cleft lip and/or palate. Which suggest that the high percentage of conductive hearing loss (55%) in children with clefts. Significant difference was found for hyper nasality (mean: 35% vs. 0%,  $p = 0.001$ ). In both groups articulation problems raise to a higher percentage than language production problems (63-20%; 24-4%).which concludes that early surgical treatment is effective for a part of the communicative development, i.e. language development and articulation. Besides conductive hearing loss hyper nasality remains a serious problem in 30-50% of the children with cleft palate. Therefore, speech therapy and pharyngoplasty also are part of the treatment procedure. Because of the high amount articulation problems in all children, standards for articulation development are perhaps too strict. Future research should be carried out after normal variations in articulation development.<sup>9</sup>

#### **Abstract-6**

##### **Speech Perceptions and Health-Related Quality of Life among Children With Cleft Lip and Palate**

**Background:** The association between perception of speech and health-related quality of life (HRQOL) among patients with cleft palate is not well understood. The purpose of this study was to determine: the agreement

between patient and parent perception of speech, the correlation between patient/parent speech perception and objective analysis by a speech-language pathologist (SLP), and the relationship between objective speech analysis and HRQOL among children with cleft lip with or without palate (CLCP).

**Methods:** The authors surveyed 108 CLCP patients who received treatment at a large tertiary medical center from 2013 to 2014. Patients and parents were queried regarding their difficulty with speech, and an SLP performed perceptual speech analysis with each patient. Patient-reported survey instruments were used to assess anxiety, depression, anger, peer relationships, stigma, and overall psychosocial health. The authors assessed the agreement between patients and SLP analysis as well as association between speech and HRQOL.

**Results:** Patient and parent-reported speech quality demonstrated moderate agreement regarding the quality of the child's speech ( $r = 0.46-0.64$ ). Parent and patient speech perception was not well associated with SLP analysis ( $V = 0.06-0.30$ ). Patient speech perception was correlated with depression ( $P = 0.03$ ), while SLP analysis was correlated with anger ( $P = 0.03$ ,  $P = 0.004$ ), depression ( $P = 0.007$ ), and difficulty with peer relationships ( $P = 0.02$ ).

**Conclusions:** Patients and parents have different perceptions of the quality of the child's speech, and their ratings differ from SLP perceptual speech analysis. Both patient speech perception and SLP analysis are correlated with important aspects of quality of life, and should be considered when evaluating children with CLCP.

#### Abstract-7

##### Self-perceived health related quality of life in adolescents with repaired cleft lip and palate

**Background:** Cleft lip and palate is one of the most frequent birth defects and is associated co-morbidities such as facial abnormalities, difficulty in feeding, speech impairments and hearing difficulties. The psychological consequences of this anomaly are often not addressed effectively resulting in silent suffering for these individuals. The dissatisfaction with surgical outcome as well as the stigma and discrimination may affect the quality of life for both patients and their family. The study evaluates the self-perceived quality of life in children with repaired cleft lip/palate.

**Methods:** Adolescents between the age of 11-18 years who were operated for cleft lip and palate in their early years were administered the WHO QOL-BREF questionnaire and their response were analysed in 4 domains, Physical health, Psychological, Social relationship and environmental.

**Results:** Among the 46 children enrolled, 29 were boys and 17 girls. The mean scores across each domain were as follows: Physical health-68.5, psychological-66, social relationship-88.5 and environmental-79.1. The psychological stressors frequently encountered were: teasing by their peer group, unattractive physical appearance and dissatisfaction with facial features post-surgery.

**Conclusions:** Among the 4 domains, the mean value of domain 3 (Social relationship) was the highest-88.5 and the mean value of domain 2 (Psychosocial) is the lowest-66. Continued psychological counseling and support during the turbulent adolescent years will help these children face the challenge of integrating with the society.

#### Abstract-8

##### Oral health-related quality of life in Dutch children with cleft lip and/or palate.

###### OBJECTIVE:

To investigate the oral health-related quality of life (OH-RQoL) of Dutch cleft lip and palate patients. It was hypothesized that (1) there is no difference between cleft patients' and their parents' reports of patients' OH-RQoL; (2) there are no gender differences; (3) there are no differences in OH-RQoL between cleft patients with regard to their symptoms; and (4) there is no difference between patients above and below 12 years of age.

###### MATERIALS AND METHODS:

The sample consisted of 122 patients with clefts (age range, 8-15 years) and their parents. Respondents were recruited from the cleft palate team of Amsterdam. They completed the Child Oral Health-Related Quality of Life questionnaire (COHIP). Items were divided into five different subscales, and scores on all subscales were compared between and within groups.

**RESULTS:**

Patients' and parents' perceptions differed significantly on three of the five subscales. Girls and boys did not differ significantly with regard to their perception of reported OH-RQoL. The cleft lip and cleft lip and alveolus [CL(A)] subgroup scored significantly higher on the functional well-being subscale. The cleft patients aged 12 years and older scored significantly lower on the emotional well-being and oral symptoms subscales when compared with their younger peers.

**CONCLUSIONS:**

Only the second hypothesis was not rejected in this study. This means that parents are not interchangeable with regard to reporting on their children's perceptions related to OH-RQoL, that OH-RQoL changes with age, and that it is important that subgroups are respected when investigating OH-RQoL in cleft patients.

**4. OVER ALL CONCLUSION**

The above mention literature shows that quality of life among children with cleft lip and palate (CLP) is very poor. The perception of family member towards CLP is also affected with social stigma and many cultural taboos. Oral health and speech related quality of life in children with cleft lip and/or palate is poor. There is need of strong policy to cover QOL of CLP children's. Continued psychological counseling and support during the turbulent adolescent years will help these children face the challenge of integrating with the society.

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