

Literature Review

PSYCHOLOGICAL LANDSCAPE OF CHILDREN WITH CLEFT PALATE: A COMPREHENSIVE REVIEW

Rininta Christabella¹, & Wati Evillia²

1. Department of Unfallchirurgie Rotall-In Kliniken, Niederbayern, Germany
2. Psychiatry Department, Metro Hospitals Cikupa, Tangerang, Banten, Indonesia

ABSTRACT

Cleft lip and/or palate (CL/P) is a common congenital craniofacial abnormality with significant psychosocial implications. This review synthesizes recent research on the psychological landscape of children and adolescents with CL/P, emphasizing the impact on emotional well-being, social functioning, and quality of life. Psychological distress, including anxiety and lower self-esteem, is prevalent among individuals with CL/P, persisting into adulthood and influencing various aspects of mental health. While some studies suggest resilience or underreporting of psychological difficulties, others highlight enduring challenges in appearance satisfaction and emotional well-being. Factors such as familial support and satisfaction with appearance play crucial roles in positive adjustment. Social functioning and peer acceptance present significant challenges, with many children experiencing isolation and stigma. However, some demonstrate adaptive social behaviours, suggesting protective factors. Quality of life is adversely affected, emphasizing the need for holistic interventions addressing physical and psychosocial aspects. While treatments positively impact perceived quality of life, specific cleft types and comorbidities like obstructive sleep apnea further influence outcomes. Overall, understanding the multifaceted challenges of CL/P is essential for implementing targeted interventions and improving overall well-being. Further research is needed to assess the long-term effectiveness of interventions and identify novel approaches for enhancing mental health in this population.

Keywords : *Cleft lip, Cleft palate, Psychological distress, Emotional well-being, Social functioning, Quality of life*

Bibir sumbing dan/atau langit-langit sumbing (CL/P) merupakan kelainan kongenital kraniofasial yang umum dengan dampak psikososial yang signifikan. Tinjauan ini menyintesis penelitian terbaru tentang lanskap psikologis anak-anak dan remaja dengan CL/P, dengan penekanan pada dampaknya terhadap kesejahteraan emosional, fungsi sosial, dan kualitas hidup. Distres psikologis, termasuk kecemasan dan rendahnya harga diri, umum ditemukan pada individu dengan CL/P, yang sering berlanjut hingga dewasa dan memengaruhi berbagai aspek kesehatan mental. Beberapa penelitian menunjukkan adanya resiliensi atau kurangnya pelaporan kesulitan psikologis, sementara penelitian lain menyoroti tantangan yang berkelanjutan dalam kepuasan terhadap penampilan dan kesejahteraan emosional. Faktor-faktor seperti dukungan keluarga dan kepuasan terhadap penampilan memainkan peran penting dalam penyesuaian positif. Fungsi sosial dan penerimaan oleh teman sebaya merupakan tantangan signifikan, dengan banyak anak mengalami isolasi dan stigma. Namun, beberapa individu menunjukkan perilaku sosial adaptif, menunjukkan adanya faktor protektif. Kualitas hidup secara umum terdampak negatif, menekankan perlunya intervensi holistik yang mencakup aspek fisik dan psikososial. Meskipun perawatan dapat meningkatkan persepsi terhadap kualitas hidup, jenis sumbing tertentu dan komorbiditas seperti obstructive sleep apnea (OSA) turut memengaruhi hasil. Secara keseluruhan, memahami tantangan multifaset pada CL/P sangat penting untuk mengimplementasikan intervensi yang terarah dan meningkatkan kesejahteraan secara keseluruhan. Penelitian lebih lanjut diperlukan untuk mengevaluasi efektivitas jangka panjang dari intervensi yang ada serta mengidentifikasi pendekatan baru untuk meningkatkan kesehatan mental pada populasi ini.

Kata Kunci: *Bibir Sumbing, Langit-Langit Sumbing, Distres Psikologis, Kesejahteraan Emosional, Fungsi Sosial, Kualitas Hidup*

Conflicts of Interest Statement:

The author(s) listed in this manuscript declare the absence of any conflict of interest on the subject matter or materials discussed.

Received: 20-04-2024, Revised: 16-07-2024, Accepted: 10-08-2024

Copyright by Christabella, R & Evillia, W., (2024) | P-ISSN 2089-6492; E-ISSN 2089-9734 | DOI: 10.14228/jprjournal.v11i2.378
Published by Lingkar Studi Bedah Plastik Foundation. This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal. This Article can be viewed at www.jprjournal.com

INTRODUCTION

Cleft lip and/or palate (CL/P) represent the most common congenital craniofacial abnormalities, characterized by a division in the lip and/or palate during fetal development. This condition encompasses various forms, including cleft lip (CL) alone or with cleft palate, as well as isolated cleft palate (CP), where the lip and primary palate develop separately from the secondary palate.⁽¹⁾ The social and emotional adjustment of individuals with CL/P is considered a dynamic process influenced by familial support, academic achievement, and personal resilience to the challenges associated with their condition. The psychosocial and cognitive well-being of these individuals results from a complex interplay of genetic predispositions and environmental influences. Notably, while facial disfigurement may not inherently predispose individuals to psychological distress, the impact of CL/P is highly individualized, influenced by factors such as developmental stage, familial dynamics, and environmental context.⁽²⁾ The psychological impact of CL/P is profound, influencing various aspects of mental health, social functioning, and overall quality of life. This review aims to delve into recent research findings to provide a comprehensive understanding of the psychological landscape of children and adolescents with CL/P, exploring key themes and implications for intervention.^(2,3)

PSYCHOLOGICAL DISTRESS AND EMOTIONAL WELL-BEING

Recent studies have highlighted the prevalence of psychological distress among children with CL/P, with manifestations ranging from anxiety to lower self-esteem. A study conducted in the United Kingdom revealed that nearly half of adults with CL/P reported a diagnosis of a mental health condition, indicating persistent emotional

challenges into adulthood. Ardouin et al (2020) emphasized the risk of emotional distress persisting into adulthood for individuals with CL/P. They recommended routine psychological support from an early age and comprehensive screening for adults returning to the service later in life.⁽⁴⁾ Factors such as fear of negative appearance evaluation and lower self-worth were observed compared to normative data, underlining the enduring impact of CL/P on emotional well-being.^(4,5)

In terms of psychological distress, incidence of anxiety has been shown to be correlated to CL/P patients. A study by Xie et al (2022) investigated anxiety levels in Chinese patients with CL/P using the Generalized Anxiety Disorder Scale (GAD-7). They found a relatively high incidence of moderate-severe anxiety among CL/P patients, with no significant difference compared to the control group. This highlights the importance of addressing anxiety as a significant concern in the CL/P population.⁽⁵⁾

Due to these psychological distress, CL/P patients are more fragile towards behavioral problems and low emotional well-being. Ghorbanzadeh et al (2021) conducted a descriptive study on 60 children with CL/P, focusing on behavioral and emotional problems. Surprisingly, they found that these children were not identified with hyperactivity and behavioral problems or emotional symptoms, indicating potential resilience or underreporting of psychological difficulties in this population.⁽⁶⁾ Kelly et al (2020) compared appearance satisfaction and emotional difficulties between different CL/P subgroups. They found significantly lower appearance satisfaction and higher emotional difficulties in CL/P patients compared to controls, particularly among older patients. However, no significant difference was found in speech satisfaction, highlighting the nuanced nature of psychosocial challenges in CL/P.⁽⁷⁾ Guillen et al (2020) revealed a

complex psychological profile in children with CL/P, characterized by strengths in self-efficacy alongside higher levels of alexithymia and certain personality risk factors.⁽⁸⁾

There are several factors affecting patients' vulnerability towards psychological distress. Costa et al (2022) identified factors associated with positive adjustment in adults with CL/P, including a happy childhood, open communication within the family, supportive friendships, satisfaction with appearance, and a positive outlook on life. Conversely, psychological distress was linked to a desire for further surgery and functional concerns, highlighting the complex interplay between psychological and physical factors in adjustment to CL/P.⁽⁹⁾

SOCIAL FUNCTIONING AND PEER ACCEPTANCE

Social interaction and peer acceptance pose significant challenges for children with CL/P, influencing their emotional well-being and overall quality of life. Research has shown that children with CL/P may struggle with social integration and peer relationships, experiencing feelings of isolation and stigmatization. Zeraatkar et al (2019) conducted a qualitative analysis to explore the experiences of children with cleft lip and palate (CL/P). Their findings revealed significant challenges in functional and socio-emotional well-being among these children. Issues such as difficulty in eating and speaking, dento-facial problems, shame, anxiety, and insufficient peer interaction were commonly reported, highlighting the complex psychosocial impact of CL/P.⁽¹⁰⁾ Likewise, Pinckston et al (2020) underscored the greater overall psychosocial difficulties experienced by children with CL/P compared to the general population, emphasizing the importance of early intervention and support services.⁽¹¹⁾

Meanwhile, in a face-to-face interview study by Moi et al (2020), adults treated for unilateral CL/P reflected on their life experiences. Despite facing persistent psychological, functional, and aesthetic challenges, participants expressed resilience and satisfaction in life. This underscores the need for a lifelong, individualized, and multidisciplinary approach to CL/P follow-up care to address ongoing needs and promote well-being.⁽¹²⁾ This difficulty in social functioning underscores the importance of early intervention strategies focused on promoting social skills development and fostering supportive peer networks.

However, it is important to note that this is not always the case. A study by Thompson et al (2021) highlighted the normal pro-social skills exhibited by children with CL/P. This suggests that while social functioning may pose challenges, many children with CL/P demonstrate adaptive social behaviors, which could serve as protective factors against psychosocial difficulties.⁽¹³⁾ On the other hand, Dalen et al (2022) found that parents of children with CL/P reported fewer emotional and behavioral problems compared to normative data. However, they identified learning difficulties as a primary concern, emphasizing the importance of early intervention and support in academic settings for children with CL/P.⁽¹⁴⁾

QUALITY OF LIFE AND INTERVENTION STRATEGIES

Children with CL/P often face a myriad of challenges that significantly impact their quality of life. Beyond the physical implications of the condition, such as difficulties in eating, speaking, and potential dental issues, these children frequently encounter psychosocial struggles.^(2,3) Yusof et al (2023) summarized the negative impact of CL/P on the quality of life of young patients, particularly in the domain of

psychological health. They emphasized the importance of understanding the specific domains affected by CL/P to inform targeted healthcare interventions and reduce stigma associated with the condition.⁽³⁾

While advancements in surgical and orthodontic treatments have improved the overall quality of life for children with CL/P, challenges persist in areas such as body image, self-esteem, and social relationships. Longitudinal analyses have indicated that children with CL/P may experience greater psychosocial difficulties compared to the general population, particularly during early developmental stages.^(8,11) Early interventions aimed at providing family support, psychological counseling, and social skills training are essential for promoting resilience and positive psychosocial outcomes in children with CL/P. Ruiz-Guillen, et al (2021) suggested on a personalized holistic management using biopsychosocial approaches to improve patients quality of life.⁽¹⁵⁾

A study by Crepaldi et al (2019) utilized the SF-36 questionnaire to assess health-related quality of life (QoL) in adolescents with CL/P. Their findings indicated that cleft type did not significantly affect QoL when considering age and gender, highlighting the importance of individualized support irrespective of cleft type.⁽¹⁶⁾

Nevertheless, studies have shown an increased quality of life as a result of treatment among CL/P patients. Guillen et al (2021) research demonstrated the positive impact of treatments on the perceived quality of life for patients with CL/P, particularly in physical health domains. This underscores the importance of holistic interventions to address both physical and psychosocial aspects of CL/P.⁽¹⁷⁾ Additionally, Nolte et al (2019) highlighted the significant impact of cleft type on oral health-related quality of life, with children with bilateral CL/P experiencing lower QoL compared to those with other cleft types. This underscores the importance of personalized interventions that

address specific needs based on cleft type.⁽¹⁸⁾ Meanwhile, Zong et al (2022) highlighted the high impact of obstructive sleep apnea (OSA) on the quality of life of Chinese adolescents with CP. Furthermore, they found associations between OSA-related quality of life and depression and anxiety, underscoring the need for comprehensive assessment and management of both physical and psychological aspects of CL/P.⁽¹⁹⁾

CONCLUSION

In conclusion, the psychological impact of cleft palate extends far beyond the physical manifestations of the condition, significantly influencing emotional well-being, social functioning, and overall quality of life. By understanding the multifaceted nature of these challenges, healthcare professionals can implement targeted interventions to support children and adolescents with CL/P throughout their developmental journey.

Further research is needed to explore the long-term effectiveness of intervention strategies and identify novel approaches to promote mental health and well-being in this population. Ultimately, by addressing the psychological needs of children with CL/P, we can enhance their overall quality of life and facilitate their successful integration into society.

Correspondence regarding this article should be addressed to:

Rininta Christabella. Department Unfallchirurgie, Rotall-In Kliniken, Niederbayern, Germany
E-Mail: rinintachristabella@gmail.com

REFERENCES

1. H. Akelma, ETK Kılıc, CK Kaçar, O Uzundere, A Kaydu, E Gökçek. Accidental full thickness burns by super glue. *Ann Med Health Sci Res.* 2017;7:70-71.
2. Jamnadas-Khoda B, Khan MAA, Thomas GPL, Ghosh SJ. Histoacryl

- glue: A burning issue. *Burns*. 2011;37(1):e1-e3.
doi:10.1016/j.burns.2010.09.005
3. Clarke TFE. Cyanoacrylate glue burn in a child – lessons to be learned. *Journal of Plastic, Reconstructive & Aesthetic Surgery*. 2011;64(7):e170-e173. doi:10.1016/j.bjps.2011.03.009
 4. Clayman E, Billington A, Cruse C. Full-Thickness pediatric burn following reaction between cyanoacrylate nail adhesive and cotton shirt. *J Cutan Aesthet Surg*. 2020;13(1):35-37.
doi:10.4103/JCAS.JCAS-64-19
 5. Tang CL, Larkin G, Kumiponjera D, Rao GS. Vanity burns: An unusual case of chemical burn caused by nail glue. *Burns*. 2006;32(6):776-777.
doi:10.1016/j.burns.2005.12.008
 6. Pizzi A, Mittal KL. *Handbook of Adhesive Technology*. Marcel Dekker Inc; 2003.
 7. Alhumsi TR, Shah Mardan QN. Burn Injury Due to Cyanoacrylate-Based Nail Glue: A Case Report and Literature Review. *Cureus*. Published online March 14, 2021.
doi:10.7759/cureus.13878
 8. Kelemen N, Karagergou E, Jones SL, Morritt AN. Full thickness burns caused by cyanoacrylate nail glue: A case series. *Burns*. 2016;42(4):e51-e54. doi:10.1016/j.burns.2015.11.009
 9. Clarke TFE. Cyanoacrylate glue burn in a child – lessons to be learned. *Journal of Plastic, Reconstructive & Aesthetic Surgery*. 2011;64(7):e170-e173. doi:10.1016/j.bjps.2011.03.009
 10. Lania BG, Morari J, Almeida AR de, et al. Topical essential fatty acid oil on wounds: Local and systemic effects. *PLoS One*. 2019;14(1):e0210059.
doi:10.1371/journal.pone.0210059
 11. Priyadarshi M, Kumar V, Balachander B, Gupta S, Sankar MJ. Effect of whole-body massage on growth and neurodevelopment in term healthy newborns: A systematic review. *J Glob Health*. 2022;12:12005.
doi:10.7189/jogh.12.12005
 12. Aggarwal S, Aggarwal S, Aggarwal R. Pediatric full-thickness burns by cyanoacrylate nail glue: A case report. *Burns Open*. 2021;5(4):10-12.
doi:10.1016/j.burnso.2021.06.009
 13. Brambilla E, Crevani M, Petrolini VM, et al. Exposure to Nail and False Eyelash Glue: A Case Series Study. *Int J Environ Res Public Health*. 2020;17(12):4283.
doi:10.3390/ijerph17124283