



## ***Bodily, Oral and Maxillofacial Injuries in Children and Adolescents Victims of Physical Aggression: An Interdisciplinary Perspective in Health***

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### **LITERATURE REVIEW**

#### **ABSTRACT**

**Objective:** Violence against children and adolescents represents a major public health issue, with significant repercussions on physical, psychological, and social well-being. This study aims to analyze the patterns of bodily, oral, and maxillofacial injuries in victims of physical aggression, emphasizing the interdisciplinary approach among healthcare professionals in the identification, documentation, and intervention in such cases. **Materials and Methods:** A systematic literature review was conducted using databases such as PubMed, SciELO, and BVS BIREME. Articles published in the last ten years were selected, focusing on epidemiology, clinical manifestations, and the role of different healthcare areas in the diagnosis and management of injuries resulting from physical aggression. Specific injury patterns, forensic documentation, and multidisciplinary protocols for victim care were analyzed. **Results:** The findings indicate that the face is one of the most affected regions in physically assaulted children and adolescents, with mandibular fractures, soft tissue lacerations, and dental avulsions being the most prevalent injuries. The presence of multiple traumas in different healing stages and unusual injury locations raises suspicion of abuse. Hematomas, burns, and neurological damage, such as shaken baby syndrome, were also commonly reported. Additionally, the underreporting of cases remains a major challenge, often due to a lack of training among healthcare professionals. **Conclusion:** The identification of maxillofacial injuries as indicators of child abuse requires a multidisciplinary effort involving Dentistry, Medicine, Psychology, and Social Work. Proper training of healthcare professionals and the implementation of clear protocols for reporting and intervention are essential to improving victim protection and ensuring timely intervention. Strengthening intersectoral collaboration and awareness campaigns are crucial strategies to mitigate the impact of violence on this vulnerable population.

**Keywords:** Maxillofacial Injuries; Child Abuse; Clinical Epidemiology.

## **Lesões Corporais, Bucais e Maxilofaciais em Crianças e Adolescentes Vítimas de Agressão Física: Uma Perspectiva Interdisciplinar na Saúde**

### **RESUMO**

**Objetivo:** A violência contra crianças e adolescentes representa um grande problema de saúde pública, com repercussões significativas no bem-estar físico, psicológico e social. Este estudo tem como objetivo analisar os padrões de lesões corporais, orais e maxilofaciais em vítimas de agressão física, enfatizando a abordagem interdisciplinar entre os profissionais de saúde na identificação, documentação e intervenção nesses casos. **Materiais e métodos:** Foi realizada uma revisão sistemática da literatura usando bases de dados como PubMed, SciELO e BVS BIREME. Foram selecionados artigos publicados nos últimos dez anos, com foco em epidemiologia, manifestações clínicas e o papel das diferentes áreas da saúde no diagnóstico e tratamento de lesões decorrentes de agressão física. Foram analisados padrões específicos de lesões, documentação forense e protocolos multidisciplinares para atendimento às vítimas. **Resultados:** Os achados indicam que a face é uma das regiões mais afetadas em crianças e adolescentes agredidos fisicamente, sendo fraturas mandibulares, lacerações de tecidos moles e avulsões dentárias as lesões mais prevalentes. A presença de múltiplos traumas em diferentes estágios de cura e locais incomuns de lesões levantam suspeitas de abuso. Hematomas, queimaduras e danos neurológicos, como a síndrome do bebê sacudido, também foram comumente relatados. Além disso, a subnotificação de casos continua sendo um grande desafio, muitas vezes devido à falta de treinamento entre os profissionais de saúde. **Conclusão:** A identificação de lesões maxilofaciais como indicadores de abuso infantil requer um esforço multidisciplinar envolvendo Odontologia, Medicina, Psicologia e Serviço Social. O treinamento adequado dos profissionais de saúde e a implementação de protocolos claros para notificação e intervenção são essenciais para melhorar a proteção das vítimas e garantir uma intervenção oportuna. O fortalecimento da colaboração intersetorial e campanhas de conscientização são estratégias cruciais para mitigar o impacto da violência nessa população vulnerável.

**Palavras-chave:** Traumatismos Maxilofaciais; Violência Infantil; Epidemiologia.

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## ***INTRODUCTION***

Violence against children and adolescents is a global public health dilemma, with repercussions that go beyond the physical sphere, affecting the psychological, social and economic spheres. In Brazil, epidemiological statistics outline an alarming scenario: minors are constantly subjected to physical aggression, often perpetrated in the home environment (Valente et al., 2015). The physical, oral and maxillofacial consequences resulting from these aggressions require an integrated and multidisciplinary approach, combining knowledge from Dentistry, Medicine, Psychology, Social Services and Law to provide effective and humane care.

Injuries to the oral and maxillofacial region are among the first to be accused of abuse, since the face is one of the most exposed and vulnerable areas of the body. Mandibular fractures, lip lacerations, mucosal contusions and tooth avulsions are some clinical manifestations that may indicate a history of violence (Ferreira et al., 2013). However, many of these injuries remain unnoticed or are underreported, either due to insufficient training of health professionals in identifying harmful patterns or due to victims' willingness to report their abusers.

The intersection between the various areas of health emerges as a crucial factor in addressing these specificities. The dental abuse specialist, for example, is often the first professional to avoid accusations of oral cavity abuse, and must be able to recognize such evidence, document it specifically and refer cases to the appropriate agencies (SILVEIRA et al., 2020). Medicine, in turn, provides a systemic assessment of injuries and their expert documentation, while Psychology plays a fundamental role in the emotional

rehabilitation of victims. Social Services work to protect children and adolescents, ensuring access to a support network and legal assistance.

This article encourages reflection on the importance of interdisciplinary training for health professionals in identifying and intervening early in episodes of violence against minors (Walsh et al., 2022). Through a scientific and humanistic approach, the aim is to highlight the role of each specialist and the pressing need for effective protocols for detecting, documenting and referring to these cases. After all, violence should not be a silent sentence for the most vulnerable; it is up to health sciences to convert knowledge into action and protection.

## **MATERIALS AND METHODS**

During the development of this narrative review article, it was essential to establish a methodological strategy to ensure the inclusion of the most current, relevant, and scientifically validated information on the topic, providing robust and well-supported content. Searches were conducted across multiple databases, including DeCs, BVS/BIREME, PROSPERO, SciELO, PubMed Central, ScienceDirect, Web of Science, and The Cochrane Library, in conjunction with Google Scholar. Additionally, gray literature was utilized to provide supplementary and relevant insights, which proved crucial for a comprehensive exploration of the subject matter. To refine the scope and relevance of the searches, the following descriptors were employed: Maxillofacial Injuries; Child Abuse and Clinical Epidemiology. Given the narrative review format, it was necessary to adopt a framework that defines the structure, essential elements, and exclusions pertinent to this type of study. Consequently, Rother's (2007) work served as a methodological guide throughout the preparation of this article, ensuring consistency and adherence to the standards of narrative literature reviews.

## **RESULTS AND DISCUSSION**

Analyses of physical aggression against children and adolescents reveal a disturbing panorama regarding bodily, oral and maxillofacial injuries. The incidence of these injuries varies according to geographic location and reporting methods; however, investigations indicate the face as one of the areas most frequently affected in episodes of child abuse (Augusta et al., 2023). Fractures of the zygomatic-orbital complex and mandibular bones are among the most common, generally accompanied by large edema, hematomas and ocular displacements (Aguar et al., 2025).

Injuries to the oral cavity, including lacerations of the lips and mucous membranes, crown fractures and tooth avulsions, are highly suggestive signs of injury. In many contexts, such injuries are attributed to falls or domestic incidents, which makes identification and proper documentation difficult (Paixão et al., 2023). Children under five years of age present specific traumatic patterns, showing a higher frequency of injuries in the frontal and periorbital regions, while adolescents manifest mandibular fractures and dentoalveolar injuries correlated with direct impacts (Zerfowski & Bremerich, 1998).

Research also establishes an explanation between the type of trauma and the profile of the aggressor: violent acts perpetrated by guardians tend to present repetitive patterns of injury, while extrafamilial aggressions are more associated with blunt impacts and serious fractures (T Sano-Asahito et al., 2015). In cases of serious neglect, a high prevalence of oral pathologies is observed, such as extensive cavities and untreated oral infections, evidencing the deprivation of basic dental care (Ramazani, 2014).

Bruises, frequently identified in victims of physical injury, present different trends of evolution, acquiring different colors depending on the chronology of the trauma. Bruises in atypical areas, such as the face and cervical region, require careful scrutiny, as they may signal repeated episodes of violence (Herrera et al., 2025). At the same time, burns from boiling liquids or incandescent objects appear as relevant indicators of mistreatment, exhibiting morphological patterns suggestive of intentionality. Bone fractures in minors may be markers of preference when identified in atypical areas, such as ribs and proximal humerus, or when they show changes in different settings, indicating successive traumas (Nissinen et al., 2025). Delay in seeking

medical care also stands out as a warning factor, since, in many cases, guardians supervise the care to avoid suspicions of violence.

Neurological injuries, notably traumatic brain injuries (TBI), arise as critical concerns in minors subjected to aggression. The so-called "Shaken Baby Syndrome" occurs due to sudden and repetitive movements of acceleration and deceleration, culminating in serious damage, subdural and retinal hemorrhages. These impairments frequently result in irreversible neurological deficits and, in extreme situations, the death of the victim (Alves et al., 2020).

In addition to the physical repercussions, violence inflicted in childhood and adolescence can trigger long-lasting psychological and behavioral consequences. Studies suggest that children subjected to violence are more likely to develop anxiety disorders, depression, and difficulties in social development (Norman et al., 2012). The emotional impact often manifests itself through isolation, poor academic performance, and eating disorders. Recognizing these implications is essential to ensure not only physical rehabilitation, but also the psychological support needed to mitigate emotional damage (Merino et al., 2024).

Early detection of these injuries by health professionals is essential for effective intervention and prevention of worsening. Interprofessional training aimed at identifying harmful patterns associated with child violence can significantly increase reporting and referral rates, providing more effective and protective care for victims (Lauren Elizabeth Lines et al., 2024 and Inkilä et al., 2013). The implementation of specific protocols in health services, the formulation of efficient public policies, and the expansion of educational campaigns are essential strategies for preventing and combating child violence (Leilane Lacerda Anunciação et al., 2022).

Finally, the ethical commitment of healthcare professionals must go beyond clinical diagnosis. Mandatory reporting of suspected cases, as recommended by Brazilian law, is a fundamental imperative to safeguard the safety of victims. Coordination between different sectors of society, including educational institutions, guardianship councils and healthcare units, can enable a more robust protection network, reducing underreporting and expanding the possibilities for early intervention.

Only through the convergence of multidisciplinary efforts will it be possible to transform the reality of minors exposed to violence and ensure a safer future for this vulnerable population.

## **CONCLUSION**

Physical aggression against children and adolescents is a serious public health issue with profound physical, psychological, and social consequences. Maxillofacial injuries, including fractures, lacerations, and dental trauma, are key indicators of abuse, requiring a multidisciplinary approach for proper identification and intervention. Despite existing protocols, underreporting remains a challenge due to professional unpreparedness and systemic barriers. Strengthening interdisciplinary collaboration, improving forensic documentation, and promoting legal awareness among healthcare professionals are essential steps to enhance victim protection. Addressing this issue demands not only scientific rigor but also ethical commitment, ensuring early intervention and a safer future for vulnerable individuals.

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