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ORIGINAL ARTICLE

Auditory-perceptual analysis of voice in abused children and adolescents☆,☆☆

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KEYWORDS
Child abuse;
Voice;
Communication disorders;
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Abstract
Introduction: Abused children and adolescents are exposed to factors that can trigger vocal changes.
Objective: This study aimed to analyze the prevalence of vocal changes in abused children and adolescents, through auditory-perceptual analysis of voice and the study of the association between vocal changes, communication disorders, psychiatric disorders, and global functioning.
Methods: This was an observational and transversal study of 136 children and adolescents (mean age 10.2 years, 78 male) who were assessed by a multidisciplinary team specializing in abused populations. Speech evaluation was performed (involving the aspects of oral and written communication, as well as auditory-perceptual analysis of voice, through the GRBASI scale). Psychiatric diagnosis was performed in accordance with the DSM-IV diagnostic criteria and by applying the K-SADS; global functioning was evaluated by means of the C-GAS scale.
Results: The prevalence of vocal change was 67.6%; of the patients with vocal changes, 92.3% had other communication disorders. Voice changes were associated with a loss of seven points in global functioning, and there was no association between vocal changes and psychiatric diagnosis.

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Conclusion: The prevalence of vocal change was greater than that observed in the general population, with significant associations with communication disorders and global functioning. The results demonstrate that the situations these children experience can intensify the triggering of abusive vocal behaviors and consequently, of vocal changes.

PALAVRAS-CHAVE
Maus tratos infantis;
Voz;
Transtornos da comunicação;
Saúde infantil

Análise perceptivo-auditiva da voz de crianças e adolescentes vítimas de maus tratos

Resumo
Introdução: Crianças e adolescentes vítimas de maus tratos estão expostas a fatores que podem desencadear alterações vocais.
Objetivo: Analisar a prevalência de alteração vocal nesta população realizando análise perceptivo-auditiva da voz e estudar a associação entre alteração vocal, transtornos da comunicação, transtorno psiquiátrico e funcionamento global.
Método: Estudo observacional e transversal. Participaram 136 sujeitos, com idade média de 10,2 anos, atendidos por equipe multidisciplinar especializada no tratamento ambulatorial de vítimas de maus tratos. Foi realizada avaliação fonoaudiologia (aspectos da comunicação oral e escrita e análise perceptivo-auditiva da voz a qual foi feita por meio da escala GRBASI). O diagnóstico psiquiátrico foi dado de acordo com os critérios diagnósticos da CID-10 e aplicação do K-SADS; o funcionamento global foi avaliado por meio da escala C-GAS.
Resultados: A prevalência de alteração vocal foi de 67,6%, dos pacientes com alteração vocal, 92,3% apresentaram outros transtornos da comunicação. A alteração vocal está associada a um prejuízo de sete pontos no funcionamento global e não apresentou associação com transtorno psiquiátrico.
Conclusão: A prevalência de alterações vocais encontrada foi maior do que a observada na população geral, com associações significantes com transtornos da comunicação e funcionamento global. As situações que estas crianças vivem podem intensificar o desencadeamento de comportamentos vocais abusivos e consequentemente de alterações vocais.

Introduction

Violence against children and adolescents is considered to be a public health problem due to the many negative consequences to biopsychosocial development,[1] such as internalizing and externalizing problems,[2,3] below average intellectual function,[3] academic and school performance impairment,[4,5] as well as oral and written communication disorders.[6,7]

Oral language, one of the most elaborate forms of human communication, allows the child to organize his/her perceptions, acquire knowledge, and build memories. It provides not only social interaction, but also the learning and use of rules to regulate one's own behavior and emotional state.[8] Oral language acquisition disorders can impair learning[9] and cause social, emotional, and behavioral problems.[10,11]

Successful communication depends not only on the content of what is said, but also on the manner and attitude that the speaker assumes during the interaction. Specifically, facial expressions and vocal modulations during oral emission convey the speaker's emotional state and intention.[12] Thus, the production and recognition of specific characteristics of the speaker contribute to effective communication.

The voice is an innate neurophysiological function, resulting from a sophisticated muscular processing. Through its flexibility, it acts as a sensitive indicator of the speaker's emotions, attitudes, physical condition, and sociocultural role.[13]

Any difficulty or alteration in vocal emission that prevents natural voice production characterizes dysphonia,[14] an increasingly common observation, with a prevalence of 6%–37%.[15–17]

Genetic and environmental components influence the onset of vocal symptoms in different ways: the genetic effect is moderate, while the environmental effects are the more important factors in the onset of dysphonia.[18]

The causes of dysphonia include premature birth;[19] nasal obstruction;[20] allergic pulmonary reactions, such as asthma and bronchitis; gastroesophageal reflux; auditory symptoms;[16] and sleeping problems.[21] The main cause, however, is vocal abuse by children, as indicated by studies with dysphonic children (90.3%,[22] 45.2%,[23] and 54.67%[24]). The rapid and continuous collision of the vocal folds during phonation causes trauma to the mucosal capillaries, edema, and initiates the process of nodule formation. Lesions such as cysts, sulci, paralysis, and papillomatosis may also occur.[24]