

SOME ESSENTIAL DIFFERENCES IN THE VOCAL CHARACTERISTICS OF CHILDREN WITH AND WITHOUT VOICE DISORDERS

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When children come into contact with their peers in pre-school institutions, conflicts for domination begin. The children often shout and speak outside their register. This behavior negatively affects the proper development of their phonation mechanisms. The purpose of the present work is to determine the differences between the vocal characteristics of a group of children with vocal disorders and a control group in several Zagreb kindergartens. The voices of children identified as having vocal disorders were analyzed, with the voice parameters measured providing good measuring characteristics for distinguishing the groups. The voice onset time, maximal time of sustained consonant, and the fundamental frequency perturbations were analyzed.

INTRODUCTION

The initial hypothesis for this work is related to the discovery of the dysphonias depend on vocal resistance or tension. We would expect the most common form of dysphonia, hyperkinetic dysphonia, to arise in children. The first sign of disturbed phonation is dysphonia, and the most common form of dysphonia is hoarseness.

Brodnitz (according to Wilson, 1979) considers that complete pure strength is the main element of many voice disturbances and said, "Children who use and often abuse their voices burden their vocal cords by shouting until nodules appear." In preschool institutions, the child comes into contact with its peers and begin to struggle for domination. They shout very frequently and speak outside their register, which causes a negative affect on the development of the phonation mechanisms. Voice abuse, such as shouting and talking too loudly during playing, is according to many authors the main cause of child hoarseness. Böhme (1969) considers that 30-40% of all hoarseness in childhood is the result of hyperkinetic dysphonia.

The purpose of this investigation was to identify the vocal features that distinguish a preschool group with voice disorders from a group without voice disorders. The following vocal parameters were investigated: voice onset time, perturbations of frequency and intensity of the fundamental laryngeal tone, and the maximal time of sustained consonant.

METHOD

Subjects

The sample included thirty-six children with voice problems and thirty-one without voice problems. They were selected at random from a population of preschoolers (502 children) at eight kindergartens in Zagreb, on the basis of the subjective evaluations of the children's voices (as judged by an examiner) and spectral analyses of the voic-

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