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Corso di Laurea in Odontoiatria e Protesi Dentaria

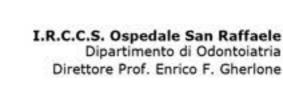
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Choral singing as a logopedic and myofunctional therapy in early age

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The aim of the present work is to describe and present a clinical protocol of choral cantotherapy in which the logopedical and myo-functional rehabilitation principles are applied in order to obtain the correction of logopedic problems, spoiled habits and phonetic difficulties that can trigger or stabilize occlusal problems such as openbite and anterior crossbite difficult to resolve at a later age

MATERIALS AND METHODS

Three clinical cases are analyzed and documented: a 6 years old female patient, a 6 years old male patient, and a 5 years old female patient. To these patients was applied a new clinical protocol called Choral Kids based on a logopedic and myofunctional approach practical through singing lessons given to children between the ages of 3 and 6 years. The initial diagnostic documentation of the subjects consists of video for the evaluation of the language and photos of the initial smile. An orthodontic and logopedic evaluation is also performed to determine the occlusal relationships (Angle class), interincisives (overbite and overjet) and functional aspects. This protocol, designed and developed with a speech therapy specialist and applied by the Master Choir Director, uses songs and rhythms that make it possible to utilize the phonemes responsible for the re-education of the lingual posture and myofunctional orofacial re-education. The basic protocol includes a singing course for six months with 45-minute sessions each week and with quarterly orthodonticlogopaedic monitoring. During this period, the small patients are also invited to perform the singing activity at home spontaneously and joyfully without any forcing from the parents.

	CASE 1	CASE 2	CASE 3
то	-2mm OJ	1mm OJ	0 mm OJ
	-2mm OB	-2mm OB	-8mm OB
T1	O mm OJ	1mm OJ	1mm OJ
	O mm OB	0 mm OB	-2mm OB

Caso 1





Caso 2





Caso 3





RESULTS

The analyzed cases allow to observe the occlusal benefits obtainable with only 6 months of application of this protocol. The three previously documented clinical cases presented anterior openbite before Choral Kids protocol therapy and achieved significant improvement of occlusal parameters with improvement of anterior openbite. Atypical deglutition was also corrected, correlated with the establishment and / or perpetuation of malocclusion. In the follow-up after 6 months the improvement of the occlusion remained stable in all three subjects presented. Given the precocious age and the severity of malocclusions it is evident how the application of the Choral Kids protocol allowed to intervene early, correcting the occlusal and logopedic problems.

CONCLUSIONS

The use of singing at an early age through choral sections could be successful and innovative in preventing the consolidation of malocclusion patterns and spoiled habits. Conventional orthodontic, logopedic and myofunctional interventions do not win collaboration at such an early stage and therefore do not allow the primary prevention of such problems as it seems to be able to obtain the singing therapy through the Choral Kids clinical protocol.

- Vickhoff B, Malmgren H, Aström R, et al. Music structure determines heart rate variability of singers. Front. Psychol. 2013;4:334.
 Available at: http://www.ncbi.nlm.nih.gov/pubmed/23847555.
- Goldenberg RB. Singing Lessons for Respiratory Health: A Literature Review. J. Voice 2018;32(1):85-94. Available at: http://www.ncbi.nlm.nih.gov/pubmed/28461167.
- Porges SW, Furman SA. The Early Development of the Autonomic Nervous System Provides a Neural Platform for Social Behavior: A Polyvagal Perspective. Infant Child Dev. 2011;20(1):106-