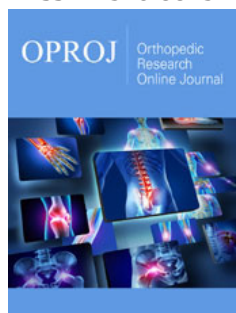


Neuropsychology as a Magnifying Glass of Music Education for Health-Education Research

ISSN: 2576-8875



***Corresponding author:** de Dios Tronch Amparo, Universidad de Valencia, Spain

Submission:  June 16, 2022

Published:  July 11, 2022

Volume 9 - Issue 4

How to cite this article: Bermell Corral M^oÁngeles, de Dios Tronch Amparo. Neuropsychology as a Magnifying Glass of Music Education for Health-Education Research. Ortho Res Online J. 9(4). OPROJ. 000720. 2022.
DOI: [10.31031/OPROJ.2022.09.000720](https://doi.org/10.31031/OPROJ.2022.09.000720)

Copyright@: de Dios Tronch Amparo, This article is distributed under the terms of the Creative Commons Attribution 4.0 International License, which permits unrestricted use and redistribution provided that the original author and source are credited.

Bermell Corral M^oÁngeles and de Dios Tronch Amparo*

Universidad de Valencia, Spain

Abstract

Although the advancement of music education has followed an evolutionary line at school, music continues with an unstable schedule that does not occur in other European countries. The relevance that the musical experience has in the development of education and that the scientific literature does not cease to expose, demonstrates the influence that emerges in the neurophysiological changes of the human being. This process of stimulation or training requires an adequate schedule where the specialist teacher allows him to innovate and integrate to design cooperative groups.

In this sense, Music in Secondary acquires a greater relevance for adolescence. Thanks to neuropsychology together with musical strategies, the change in the musical teaching-learning process can be globalized with other areas of knowledge, allowing the inclusion of the classroom to be improved and, as a consequence, to replace social exclusion.

Keywords: Neuropsychology; Stimulation; Musical strategies and training

Introduction

Everyone can sing a melody, follow a rhythm and needs to listen to and accompany music. Music arose spontaneously and out of necessity in all cultures. Archaeological evidence shows musical instruments dating back approximately 30,000 years according to Dérrico et al. [1]. Music, language and emotions have been refined over time, place and societies. If so, we conclude that there is an essential impulse in our brain that encourages us to listen to or produce music. Thus, there is a neurobiological substrate that supports the function and justifies the supposed musical ability of the human brain.

If the maternal language evolves and consolidates, the non-verbal musical language from birth also expresses and evolves, being the sounds emitted by the baby prerequisites of language. The infant's perceptual and attentional response to hearing a familiar sound and attending visually and auditorily, conforms the integration of the sound and visual stimulus in a sustained manner. The infant's communicative interaction is imitation through sounds and gestures, for early imitation. (.....) These facts will lead to the recognition of development in an effective way and as a model of care for the family. In fact, everyone can sing a melody according to Dalla Bella et al. [2] and dance to music. Music appears naturally as language.

The exploration of the brain through music has led to important advances in the study of children's abilities by Trehub [3], demonstrating that it is necessary to stimulate musical abilities as soon as possible. Also, Bigand et al. [4], compared the differences that exist between musicians and non-musicians, and Peretz et al. [5] explored the musical brain and provided the importance that any musical experience, even just hearing music, is enough to provoke changes in the cerebral cortex. And Juslin et al. [6], found that while listening to music, the function of emotions was activated.

Nowadays, the advance of experimental neurology and music has reached hospitals with Music Therapy and schools. However, it is still not considered sufficient as the other areas of knowledge, not having the same or similar weight in the schedule.

At present, scientific evidence continues to demonstrate that there is a neurophysiological change that occurs with the musical experience and that its application leads us to stimulate brain areas.

It is a fact that music also has an adaptive value and especially at group level, it is contagious and helps to communicate, it makes us more sociable, it offers effective solutions to the problem of the human being, because it provides individualism for the benefit of the group, achieving effective and applicable answers at all times. For example, according to Barucha et al. (2006), music can change our mood.

Finally, it cannot be understood that, if the scientific literature does not stop providing new studies that allow its application in education and health, it is crazy that, in the training of teachers specializing in music, as well as Music Therapy in hospitals, opportunities are not offered to provide training or intervention

programs and to be able to continue researching and advancing in the field of health-education as an improvement in the quality of life.

References

1. D'Errico F, Henshilwood C, Lawson G, Vanhaeren M, Tiller AM, et al. (2003) Archeological evidence for the emergence of language, symbolism, and music an alternative multidisciplinary perspective. *Journal of World Prehistory* 17: 1-70.
2. Dalla BS, Giguère JF, Peretz I (2007) Singing proficiency in the general population. *Journal of The Acoustical Society of America* 121(2): 1182-1189.
3. Trehub S, Hannon E (2006) Infant music perception: Domain-general or domain-specific mechanisms? *Cognition* 100: 73-99.
4. Bigand E, Poulind-Charonnat B (2006) Are we "experienced listeners"? A review of the musical capacities that do not depend on formal musical training. *Cognition* 100(1): 100-130.
5. Peretz I, Zatorre RJ (2005) Brain organization for music. *Annu Rev Psychol* 56: 89-114.
6. Juslin P, Sloboda J (2001) *Music emotion: Theory and research*. Oxford University Press, UK.