

INCLUSION OF MUSIC THERAPY AS AN INTERVENTION TOOL IN THE THERAPEUTIC PEDAGOGY CLASSROOM

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Abstract

This study shows the intervention carried out in the classroom of Therapeutic Pedagogy in an ordinary school of the province of Alicante in which it has been used the music therapy. The main goal of this project is to promote the use of the music therapy as an educational discipline and, also, to give an individualized answer to the learning difficulties from a more dynamic and motivating perspective. This therapy creates an atmosphere of trust and fun using the music as the basis of this methodology. The participants of the study had been: two students of Early Childhood Education and two students of Primary School. Each one of these students presents a different SEND (Special Educational Needs and Disabilities): a Developmental Delay, PDR (Psychomotor Development Retardation), a SLI (Specific Language Impairment) and a MID (Mild Intellectual Disability). Through the creation of some individual pedagogical activities using the music therapy, it has been developed an intervention of six sessions per student of approximately thirty to forty-five minutes with designed and adapted materials based on this therapy as an intervention tool. The results obtained have had a degree of effectiveness between 77% and 84% and it manifests the advantages that the use of this methodology has provided to the field of education because it assists the emotional develop. Besides, it has improved the goals that had been worked, the motricity, the concentration and the affectivity of the students decreasing their anxiety. In the future, this project could be improved by using this methodology with other kinds of SEND and, what is more, it could be used for a longer period of time and with new materials to definitely prove its effectiveness.

Keywords: *Assessment, educational innovation, music therapy, special educational needs and disabilities, therapeutic pedagogy.*

1. Introduction

Music is the universal language capable of transmitting words, feelings and emotions through melody, rhythm and harmony. Throughout history it has played such an important role in diverse social contexts that, in its evolutionary process, music has become an indispensable part of other scientific and artistic disciplines. It is used in issues as important as physical and psychological well-being and is approached from a multidisciplinary perspective, with a holistic and integrating character as Gutiérrez (2018) points out.

In an interview conducted in 2011 by Punset, the musician, psychologist and neurologist Koelsch points out that "we are innate musical creatures from the depths of our nature". From this, Punset expresses that nothing has more impact on the brain than music in the sense that it affects memory, movement, emotions... it affects practically everything.

Following Gutiérrez (2018) in the field of medicine, music is in an increasingly considered position, as it favours well-being and the possibility of fighting different pathologies. For all these reasons, it has been consolidated as an independent medical discipline, music therapy, which is now increasingly present in hospitals and clinical and social rehabilitation centres.

Since the fifties music therapy begins to be recognized and defined by various authors among whom is Thayer Gaston who separates the terms music and therapy to unite them as a whole. Gaston (1957) states on the one hand that: "Music is the science or art of gathering or executing intelligible combinations of tones in an organized and structured manner with a range of infinite variety of expression, depending on the relationship of its various component factors" (p. 23). On the other hand, Gaston (1957) defines: "Therapy has to do with "how" music can be used to bring about changes in the people who hear or perform it" (p. 23).

However, the term continues to evolve over the years until today where the Spanish Federation of Music Therapy Associations (2011) defines music therapy as: "The use of music as an intervention in medical, educational and everyday environments with individuals, groups, families or communities seeking to optimize their quality of life and improve their health and physical, social, communicative, emotional, intellectual and spiritual well-being".

This type of therapy is effective in treating certain disorders or improving the subject's quality of life, and acts in two ways: active (playing instruments, singing, playing music) and receptive (using music to induce states of relaxation). Other techniques and artistic forms are also used simultaneously with music, such as drama, dance or painting. Following Blasco (2016) a musical environment rich and controlled in stimuli can provide the child with a balanced emotional, psychophysiological and social development.

Through harmony, rhythm and melody the perspective of education can be changed by introducing music as a therapy and intervention tool in the classroom of therapeutic pedagogy. There are many possibilities offered by music (Chávez, 2012) and it seems that, at times, it is undervalued by not taking its use to the classroom. This project aims to revalue this art and demonstrate that what works as a medical therapy can be used as a starting point to work on the Special Educational Needs and Disabilities (SEND) (García-Allen, 2016).

2. Objectives

The main objective of the project is to promote the inclusion of music therapy as an intervention tool in the Therapeutic Pedagogy (PT) classroom. For this reason, a series of more specific objectives, which are intended to be achieved, have been extracted: to design activities in accordance with the different SEND through music therapy and to evaluate the improvements of the participants in the intervention carried out through the use of music therapy. This project is part of the research line of the research group of the University of Alicante InluTIC (VIRGROB-321).

3. Method

The method of the present work is a study of cases where the main objective is to investigate music therapy as a tool within the educational field through a multiple or collective case for which four students with different learning difficulties have been chosen, both in Early Childhood Education and Primary Education.

3.1. Participants

- **Early Childhood Education**

These are two 4-year-olds who attend the PT classroom. During the course of 3 years, their tutor requested an assessment by the guidance department because they could not adapt to the daily routines of the class, they did not speak, they did not have sphincter control and motorly the second subject was below their class group. After an assessment, case 1 is diagnosed with a Developmental Delay and case 2 is diagnosed with a Developmental Delay and Psychomotor Development Retardation (PDR).

- **Primary Education**

Case 3 is a 7-year-old child who has a curricular gap with his class group. He does not know the letters and this fact makes it difficult for him to keep up with the rhythm of the class. He also presents difficulties in his oral expression, due to the dyslalia. The student was diagnosed as a Specific Language Impairment (SLI).

The last case concerns a 10-year-old girl. In the first year of Primary Education, the department gave her a first assessment and she was diagnosed with a Developmental Delay. Later, the family was recommended to have a neurological assessment. Finally, her diagnosis was modified to Mild Intellectual Disability (MID), according to DSM V.

3.2. Design and process

The methodological intervention consists of two parts. On the one hand, an active methodology has been used because the participants are active subjects of their own therapeutic process which entails a visible external action such as singing, playing an instrument or dancing. And, on the other hand, a passive methodology has been put into practice only in the farewell song at the end of some of the sessions since it deals with relaxation and guided imagination (studying the inner world of the individual).

Concreting the intervention in the educational field, a series of individual or group sessions have been established, depending on the cases, to work with the students on the different proposed objectives. We have worked with each of them twice a week, with a total of six sessions for each student. During three weeks, three objectives per case study have been worked on, so that in sessions 1 and 2 the first objective

has been worked on, in sessions 3 and 4 the second objective and in sessions 5 and 6 the last specific objective.

The specific objectives for children of Early Childhood Education are: to learn the concepts "top-down" and "front-behind", to identify the parts of the body (eyes, mouth, nose, ears, head, shoulders, knees and feet) and to know the vowels and their spelling. For Primary Education students, the specific objectives are: to learn numbers from 1 to 50/100, to acquire the concept of laterality and to know the alphabet and its spelling.

The sessions of music therapy of the subjects of Early Childhood Education have taken place in the psychomotricity classroom of Early Childhood Education and the sessions of Primary Education have been carried out in the classroom of PT of the school. The duration of the sessions has been 30-45 minutes.

The structure of the sessions has been the same for all the case studies: 1. Presentation of the activities with the pictogram book "What are we going to do today?" which has been created to achieve a greater structuring of space-time and, in addition, to motivate them to carry out the activities. 2. Welcome song: these are simple songs adapted with a dance that makes the body wake up to be able to start working. 3. Development activities or Therapeutic Musical Experiences. 4. Farewell song: the session ends with a predictable and familiar ending that facilitates the understanding of the end of the session and the location to your new reality (your classroom).

As an example of infant education activities carried out through music therapy, table 1 shows the activities carried out during the first week of the intervention, i.e. the first and second session of case studies 1 and 2 working on the first specific objective.

Table 1. 1st and 2nd session subjects 1 and 2.

1st and 2nd SESSION (20 and 22 FEBRUARY)	
Objective: To learn the concepts "top-down" and "front-behind"	
Presentation	"What are we going to do today?"
Welcome	"Mi cuerpo en movimiento (Educación Infantil)" extracted from YouTube at the following link https://www.youtube.com/watch?v=4S7_nTdC_RU
Activity 1	The magic box
Duration	10 minutes (Session 1)
Resources	Box with percussion instruments including tambourines, drums, castanets, cymbals, triangles, maracas, Chinese boxes, percussion sticks, coconuts and rattles.
Development	This is the first contact with musical instruments that have made so they have manipulated the instruments freely acquiring knowledge of percussion instruments by exploring through sounds. In the magic box or musical box there were tambourines, drums, castanets, cymbals, triangles, maracas, Chinese boxes, percussion sticks, coconuts and rattles.
Activity 2	Knowing the concepts
Duration	10 minutes (Session 1)
Resources	Two balls
Development	With the help of a ball and to the rhythm of the clapping the Subjects have worked these concepts. When the teacher clapped her hands, the Subjects would put the ball above them; when she clapped her hands twice, they would put the ball below them; with three claps they would put it in front and with four claps behind.
Activity 3	Working the concepts "top-down" and "front-to-back"
Duration	10 minutes (Session 1)
Resources	Song "Música para crecer – Arriba, abajo, delante y atrás"
Development	Using the song "Música para crecer – Arriba, abajo, delante y atrás" extracted from YouTube at the following link https://www.youtube.com/watch?v=xBUC9ummmjs
Farewell 1	Relaxing music
Duration	5 minutes (Session 1)
Resources	"Música de relajación infantil # Incluye técnica todas las edades psicólogo CEPSI" in https://www.youtube.com/watch?v=F8e3VhtfNpk&t=138s and two mattresses
Development	It is a song of relaxation in which the Subjects once were lying down, they are guided with the voice until they manage to sleep their body. For this they have been told: "Imagine that you are floating, close your eyes and feel your body float, imagine that you float over the landscape, look at the colours, feel the sound of relaxation. Feel and think you feel the sensation of experiencing something pleasant".
Activity 4	We review the concepts "top-down" and "front-to-back"
Duration	10 minutes (Session 2)
Resources	Percussion instruments: tambourines, drums, castanets, cymbals, triangles, maracas, Chinese boxes, percussion sticks, coconuts and rattles.
Development	With the help of the percussion instruments they met in the first session. The idea was for them to identify the instrument and place it as it was indicated in the order, for example: "Take the bells and put them under the bench". First they had to identify the instrument and then the concept.

Activity 5	We make a circuit to the rhythm of the drum
Duration	20 minutes (Session 2)
Resources	Zigzag worm, two fences, five hoops, a rope and the drum.
Development	Once the concepts were acquired, they made a psychomotor circuit consisting of four steps. First, they had to pass over a worm that zigzagged, then under two fences, surround five rings in front and finally walk backwards following a rope. In addition, they have done all these activities following the rhythm of the drum. If the drum was played faster they had to make the circuit faster and if the drum stopped, they had to stay still like statues.
Farewell 2	Relaxing music
Duration	5 minutes (Session 2)
Resources	“Música de relajación infantil # Incluye técnica todas las edades psicólogo CEPSI” in https://www.youtube.com/watch?v=F8e3VhtfNpk&t=138s , a feather and a mattress
Development	The students were given a feather in such a way that first one will lie down on the mat while the other Subject passes the feather over his body and then the roles will be changed.

4. Results

In order to evaluate the results obtained, at the end of each session, some evaluation rubrics have been completed for each case according to the evaluation items extracted from the specific objective worked. As an example, table 2 shows the type of rubric completed with the evaluation items for subject 1 in sessions 1 and 2.

Table 2. Evaluation heading subject 1, sessions 1 and 2.

EVALUATION OF SESSIONS 1 AND 2				
Objective: To learn the concepts "top-down" and "front-behind"				
Evaluation Items	ACHIEVED	ACHIEVED WITH AID	IN PROCESS	NOT ACHIEVED
1. Has a positive attitude toward novelty (music therapy)	X			
2. Use the book "What are we going to do today?"	X			
3. Uses his body as a means of expression	X			
4. Participates in all proposed activities	X			
5. Knows and locates the concept "above"	X			
6. Knows and locates the concept "below"	X			
7. Knows and locates the concept "ahead"		X		
8. Knows and locates the concept "behind"		X		
9. Performs the psychomotor circuit autonomously	X			
10. Has a calm attitude in relaxation exercises	X			

On the other hand, in order to finally know whether the cases have succeeded in acquiring the stated objectives, data have been extracted from the evaluation headings and the weighted average to reflect their achievement has been calculated. After calculating the weighted averages as percentages, it is considered that the specific objective is “Achieved” if it is between 75% - 100%, “Achieved with aid” between 50% - 75%, “In process” 25% - 50% and finally, “Not achieved” 0% - 25%.

According to table 3, subject 1 has managed to overcome the specific objective worked in sessions 1 and 2 and the third objective worked in sessions 5 and 6. The objective worked on in sessions 3 and 4 has been achieved with aid (70%).

Finally, table 3 shows the result that averages all the sessions of all participants, in order to estimate the usefulness of music therapy as an intervention tool in each case.

Table 3. Evaluation of the objectives and degree of effectiveness of the use of music therapy in the case studies.

OBJECTIVES	SUBJECT 1	SUBJECT 2	SUBJECT 3	SUBJECT 4
Sessions 1 y 2	95%	70%	90%	78%
Sessions 3 y 4	70%	80%	85%	83%
Sessions 5 y 6	85%	80%	77%	86%
	83%	77%	84%	82%

5. Conclusions

The following conclusions can be drawn from the general objectives of the project according to the results obtained:

- The general objectives have been reached in their totality since, all the cases of study have surpassed the average of the sessions reason why, if the utility of the sessions of music therapy is valued it

is concluded that it is effective for all the subjects being the greater percentage 84% obtained on the part of the case 3 and the minor 77% on the part of the case 2.

- In all the sessions applied, the degree of effectiveness has been very good since none of the objectives have been left "In process" or "Not achieved".

- The nature of the methodology used has fostered the achievement of the proposed objectives, leaving the student himself to feel part of the teaching-learning process and to feel motivated to want to know beyond what he has worked, increasing his desire to learn.

- The definition of the Spanish Federation of Music Therapy Associations (2011) is reaffirmed, associating the use of music with the improvement of quality of life, health and well-being at all levels (physical, social, communicative...).

- It is ratified the opinion of Chávez, S. (2012) that explains that it is possible to work through music any objective that one wants whether it is to know the lyrics or the numbers, to teach concepts such as "top-down, front-behind" or even to learn to express emotions through one's own body.

- The methodological tool, which has been put into practice in a real situation with four case studies and has worked in all the Specific Needs of Educational Support with which it has worked, is very useful for the improvement of the intervention in Education. In this way, the emotional development of the students is favoured, motivating them and improving all their aspects, as it was indicated by García-Allen (2016).

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