

A Scoping Review on the Effects of Music Therapy in the Field of Education

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ABSTRACT – A Scoping Review on the Effects of Music Therapy in the Field of Education. Music therapy is a field of knowledge that studies the effects of music and the use of musical experiences on human beings. Music Therapy being considered as related to Education is not self-evident. In this sense, this scoping review aims to identify different theoretical perspectives of Music Therapy and their educational proposals. Seven fields of Music Therapy were identified that dialog with the field of Education: Educational Music Therapy, Social and Community Music Therapy, Clinical Music Therapy, Hospital Music Therapy, Neurological Music Therapy, Creative Music Therapy, and an incipient field in Palliative Care. The results show that Music Therapy offers innovative applicability in the field of Education, favoring a more inclusive, holistic, and student-centered learning environment.
Keywords: Music Therapy. Education. Scoping Review.

RESUMO – Revisão de Escopo sobre as Intercorrências da Musicoterapia no Campo da Educação. Musicoterapia é um campo do conhecimento que estuda os efeitos da música e da utilização de experiências musicais no ser humano. A consideração da Educação na Musicoterapia não é evidente. Nesse sentido, a presente revisão de escopo tem como objetivo identificar diferentes perspectivas teóricas da Musicoterapia e suas propostas educativas. Foram identificados sete campos da Musicoterapia que dialogam com a área da Educação: Musicoterapia Educacional, Social e Comunitária, Clínica, Hospitalar, Neurológica, Criativa e um campo incipiente em Cuidados Paliativos. Os resultados mostram que a Musicoterapia oferece uma aplicabilidade inovadora no campo da Educação, favorecendo um ambiente de aprendizagem mais inclusivo, holístico e centrado no aluno.
Palavras-chave: Musicoterapia. Educação. Revisão de Escopo.

Introduction

According to the Brazilian Union of Music Therapy Associations (*União Brasileira das Associações de Musicoterapia*) (UBAM, 2018), Music Therapy is a field of knowledge that studies the effects of music and the use of musical experiences on human beings resulting from the encounter between the music therapist and the people they assist. It is important to highlight that the practice of Music Therapy aims to increase the possibilities of existing and acting, whether in individual work, with groups, in communities, organizations, health institutions, in the areas of health promotion, prevention and rehabilitation, aimed at transformation of social and community contexts, thus avoiding or reducing harm in processes of developing the potential of people and/or communities (UBAM, 2018). Music Therapy also contributes to well-being and health promotion in general, leading to the strengthening of identity and autonomy in terms of living in society. Music Therapy is a relatively recent field that aims to contribute, with its specificity, to the area of Education. In Music Therapy, there are many practices and a lifetime of building practices and knowledge that can be valued by the area of Education (Zaguini, 2021; Zaguini; Stoltz; Ansay, 2021). This new knowledge can be present in the school context to enhance the quality of the teaching and learning process. In this sense, it is necessary to carry out research that can contribute to understanding the relationships between Music Therapy and Education.

The relevance of specialized Music Therapy services in schools is still little recognized. As a result, because they are unaware of the benefits of this approach, few education establishments welcome qualified music therapists. In schools, Music Therapy can meet the student's individual and group needs, extending to their family and social context. There is a growing number of children who present disruptive behaviors, where Music Therapy could help, contributing to the child's learning and integration into their social and cultural environment. It is essential to highlight that only a Music Therapy professional is qualified to conduct specialized sessions, especially those whose main objective is therapy (Cunha; Volpi, 2008; Chao-Fernández; Gisbert-Caudeli; Vázquez-Sánchez, 2020).

Music Therapy in the area of Education, according to Cunha & Volpi (2008), can form part of both regular and special education schools and can contribute to the student's individual learning, in addition to collaborating with the school's overall objectives. Therefore, a music therapist who works in the educational environment aims to stimulate the development of students' cognitive, motor, social and emotional skills and expand learning possibilities (Cunha; Volpi, 2008). Music Therapy can be integrated into the school environment, provided there is a designated place for it and it is established as an area of an interdisciplinary nature. This must take place in joint agreement with the school's educational advisor, pedagogical coordi-

nator, educational psychologist and other specialists who are constantly involved in the education process.

Music Therapy has gained force over the last 60 years. Recent research demonstrates the evolution of results with evidence in several areas of clinical practice (Zatorre; Peretz, 2001; Peretz; Zatorre, 2004; Thaut et al., 2009; Vianna et al., 2011; 2012; Taets et al., 2019; Santos et al., 2021; Costa, 2022). However, little is known about the educational proposals of Music Therapy. In this sense, our research question was as follows: What are the theoretical perspectives of Music Therapy and its educational proposals?

Method

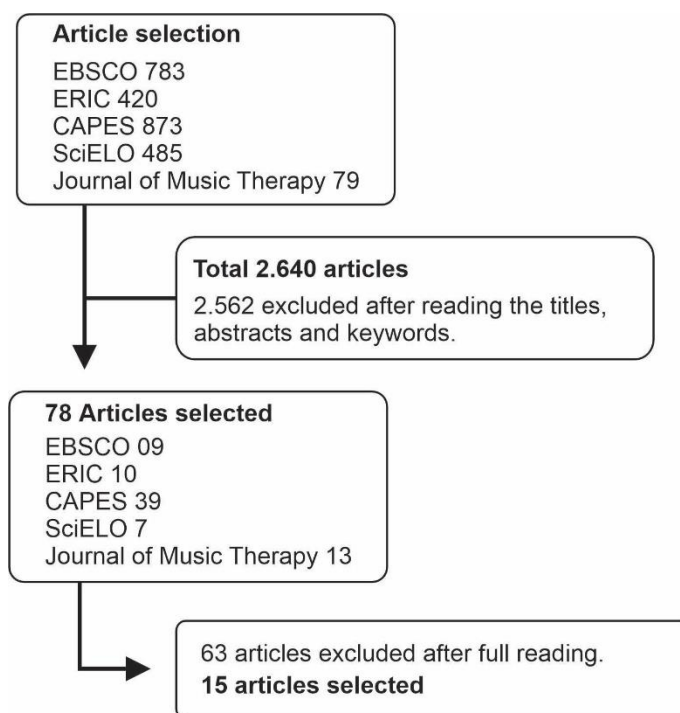
In order to survey different perspectives in this respect, we chose to perform a scoping review. A scoping review involves the synthesis and analysis of a range of investigations in order to provide greater conceptual clarity on a specific topic or evidence from a given field (Davis; Drey; Gould, 2009). Therefore, a scoping review applies to a particularity of an unreviewed body of literature. Arksey & O'Malley (2007), Levac, Colquhoun & O'Brien (2010) propose the following methodological steps for carrying out a scoping review: 1) definition of the research question; 2) identification of relevant studies; 3) selection of studies; 4) data mapping; 5) comparing, summarizing and reporting the results.

The question that guided the scoping review was: what are the theoretical perspectives of Music Therapy and its educational proposals? The databases chosen for the literature search were EBSCO, ERIC, CAPES, SCIELO and the Journal of Music Therapy, due to their relevance as to the discussion of the research question. Selection of peer-reviewed articles began with reading the titles, abstracts and keywords, applying the inclusion and exclusion criteria. The descriptors used were music therapy, education, music education. The Boolean operators used were AND and OR and possible cross-referencing was performed by combining the descriptors we used. A scoping review allows inclusion of randomized clinical trials, experimental and non-experimental studies, data from empirical and theoretical literature for a more complete understanding of the phenomenon under analysis (Arksey; O'Malley, 2007). Theoretical and empirical studies on Music Therapy and Education were searched for in order to answer the research question.

The criteria established for the inclusion of studies were: (a) indexed, peer reviewed articles; (b) in English, Spanish and Portuguese; (c) published between January 2016 and March 2021; (d) with a topic relevant to the objective of the review. The exclusion criteria adopted were: books, book chapters, critiques, letters, news reports, summaries, conference annals, editorials, dissertations and theses, topics unrelated to the objective of the review and articles published before 2016. The aim of including articles published between January 2016 and March 2021 was to search for recent studies in order to under-

stand the current panorama of scientific production and point to possible gaps and opportunities for new studies. Once the search had been performed, we read titles, abstracts and the full texts. Articles that did not meet the inclusion criteria and repeated articles were excluded. The following flowchart shows the total number of articles selected from the databases, after applying the inclusion and exclusion criteria:

Figure 1 – Flowchart of the selection of articles for the scoping review



Source: Zaguini (2021, p. 30).

As per the flowchart, it can be seen that initially 2,640 potentially relevant titles were found, of which 2,562 were excluded, after reading the title, abstract and keywords. The 78 (seventy-eight) selected articles were distributed as follows: EBSCO 9 (nine) articles, ERIC 10 (ten), CAPES 39 (thirty-nine), SciELO 7 (seven) and JMT 13 (thirteen). After reading the articles in full, 15 (fifteen) articles were selected.

Results and discussion

The content analysis of the articles by themes was based on Minayo (2008), namely thematic analysis based on the following steps: pre-analysis; exploration of the material, treatment of the results obtained and interpretation. In the pre-analytical phase, the registration units, context units (delimitation of the context), sections, the form of categorization and the general theoretical concepts that guided the

analysis were determined. The pre-analytical phase determined the organization of tables. The presentation of the tables in this research is available in the Master's Degree thesis of one of the authors (Zaguini, 2021). The second stage, exploration of the material, consisted of a classificatory operation, aimed at reaching the core understanding of the text. Categorization involved the process of reducing the text to meaningful words and expressions. From this stage, we arrived at the themes. Finally, the results obtained were processed in text form. The meanings contained in the texts stated for each theme were sought.

Box 1 of the Master's Degree thesis (Zaguini, 2021), provides a list of the selected articles, indicating the title, author, year, journal, country and link. Six articles were published in 2017 (Addressi; Bonfiglioli, 2017; Dvorak et al., 2017; Eren; Gul, 2017; McFerran; Crooke; Bolger, 2017; Salvador; Pasiali, 2017; Smith, 2017), two were published in 2018 (Amorim; Bedaque, 2018; Situmorang; Mulawarman; Wibowo, 2018), three were published in 2019 (Coombes, 2019; Dvorak; Hernandez-Ruiz, 2019; Moore; Wilhelm, 2019), two were published in 2020 (Chao-Fernández; Gisbert-Caudeli; Vázquez-Sánchez, 2020; Kim et al., 2020) and two were published in 2021 (Nascimento; Beggiato, 2020; Liu, 2021). The articles were found in the following on-line journals: *Journal of Music Therapy* (JMT), *ORFEU*, *Revista Brasileira de Educação Médica*, *The Arts in Psychotherapy*, *Educational Research and Reviews*, *Applied Sciences*, *The Korean Journal of Hospice and Palliative Care*, *International Journal of Education; the Arts*, *Arts Education Policy Review*, *International Journal of Psychology and Educational Studies*, *International Journal of Music Education*, *Revista Educação e Formação* and *Revista Brasileira de Medicina do Esporte*.

Still with regard to Box 1, the journal that stood out in terms of number of articles was the *Journal of Music Therapy*, with three articles. The majority (five) of the articles were published in the United States (Dvorak et al., 2017; Dvorak; Hernandez-Ruiz, 2019; Salvador; Pasiali, 2017; Smith, 2017; Moore; Wilhelm, 2019), followed by Brazil with three articles (Addressi; Bonfiglioli, 2017; Amorim; Bedaque, 2018; Nascimento; Beggiato, 2020), England (Coombes, 2019), Turkey (Eren; Gul, 2017), Spain (Chao-Fernández; Gisbert-Caudeli; Vázquez-Sánchez, 2020), South Korea (Kim et al., 2020), Australia (McFerran; Crooke; Bolger, 2017), Indonesia (Situmorang; Mulawarman, 2018), and China (Liu, 2021). It is worth highlighting the presence of articles in Brazilian journals, retrieved from the databases, which point to the growing production of relevant articles on Music Therapy by Brazilians. The Brazilian journals that stood out in this review were: *Revista Educação e Formação* (Fortaleza-CE), *Revista Brasileira de Medicina do Esporte* (São Paulo-SP), *ORFEU* (Florianópolis-SC) and *Revista Brasileira de Educação Médica* (Brasília-DF).

Box 2 of the Master's Degree thesis contains a list of the selected articles organized by objective, methodology and main results. After exploring the articles, the following themes were found: 1) Music Therapy, Music Education and technology; 2) Humanization in Medical Teaching; 3) Music Therapy with groups of students in higher education and Con-

tinuing Education; 4) Music Therapy and Inclusive Education; 5) Music Therapy and Educational Policies.

The theme *Music Therapy, Music Education and technology* included the articles by Addessi & Bonfiglioli (2017) and Chao-Fernández, Gisbert-Caudeli & Vázquez-Sánchez (2020). In their work, Addessi & Bonfiglioli (2017), present the paradigm of *reflective interaction*, within the scope of the Musical Interaction Relying (MIROR)¹ project. This paradigm was created through new technologies to increase children's musical and motor creativity by means of Reflexive Interactive Musical Systems (RIMS). The system responds by repeating the same notes that the user plays on the keyboard, marking the beginning of a dialogue based on repetition and variation. The material that emerges between the user and the RIMS is not predetermined by the machine and is not only performed by the child, but is also built by both in an alternating manner. For the authors, the basic hypothesis of the MIROR project favors and supports the child's learning processes, creativity and expressiveness. The theoretical perspectives of RIMS also depart from pedagogical concepts. In this article, theoretical references were found in Educational Psychology, with Vygotsky (1962) and Stern (1985; 2004), in Social and Community Music Therapy, with Bruscia (1987; 1998), in Clinical Music Therapy, with Wigram (2004; 2003), Wheeler (2016) and Pavlicevic (2000), in Music Education, with Tafuri (1995; 2006), and in Neuroscience, with Zatorre (2012).

The main objective of the research by Chao-Fernández, Gisbert-Caudeli & Vázquez-Sánchez (2020) was to verify whether the use of a musical video game, based on Information and Communication Technologies (ICTs), improves social skills and students' disruptive behaviors. Two working hypotheses are proposed: verifying whether musical games bring improvements in students' disruptive behaviors and verifying whether, based on Goleman's² (1996) intelligence model, they can develop other intelligences. The author created *Musichao*, a musical video game with a series of musical activities designed and adapted for curricular content. Students were able to experiment with the games in music therapy sessions, daily, for 15 minutes. After the initial interaction with the computer game, students were instructed to advance through the phases of the game in groups, so that they could help each other and evolve with the content. The theoretical references that stood out were found in the areas of Social and Community Music Therapy with Stige, Elefant & Pavlicevic (2016), Pasiali & Clark (2018), Gold et al. (2017) and Hohmann et al. (2017); in Neurological Music Therapy, with Davis, Gfeller & Thaut (2000) and Gfeller (1984); in Educational Music Therapy, with Pérez (2018) and Pérez, Ramos & Barros (2015); in Clinical Music Therapy, with Wigram, Bonde & Pedersen (2011); Music Education with Webster (2016); in Educational Psychology, with Gardner (1994).

In the theme *Humanization in Medical Teaching*, we found the article by Amorim & Bedaque (2018) which presents the *Mediarte* project as a possibility for meeting the current demands of expanded and

complex medical training. This work was carried out by Medical students from the *Universidade Federal do Rio Grande do Norte* (UFRN), Natal campus, Brazil, in the pediatric sector of the *Hospital Universitário Onofre Lopes*, and consisted of Music Therapy, Play Therapy, and Clown Therapy interventions with hospitalized children. Considering the teaching, research and extension tripod, this project highlights the importance of extension activities in higher education. The potential of this project, *Mediarte: love and humor*, lies in contributing to medical training based on the new National Curricular Guidelines for Undergraduate Medicine, which emphasize the importance of a relationship centered on the patient and not just on their disease. Sensitive practices linked to the arts, such as Music Therapy, are an opportunity for students to relate to children in a playful and creative way. From this theoretical perspective, raising students' awareness of humanized and comprehensive care presents itself as an educational strategy that could be replicated and implemented in other Brazilian medical schools. The theoretical references that stood out were in the areas of Methodology, with Minayo (2006), Pediatrics, with Carvalho (2006) and Medical Education, with Garcia et al. (2007).

In the theme *Music Therapy with groups of students in higher education and continuing education*, Dvorak et al. (2017), Dvorak & Hernandez-Ruiz (2019) have been developing educational training programs for music therapy undergraduate students with positive results. In 2017, they presented a study of the development process of Music Therapy students based on Grounded Theory³. The resulting theory is based on the student's interpretation, construction and reflection on their development within a specific sociocultural context. For the authors, self-analysis and the experience of different musical experiences that can reproduce various clinical scenarios will provide Music Therapy students with confidence and security for their future professional life. In 2019, Dvorak & Hernandez-Ruiz undertook experimental research with the aim of developing a *Course-based Undergraduate Research Experience*⁴ (CURE) for music therapists and Music Education students. With this model, it is possible to increase the number of people as active scholarship holders at universities. This course model can also be an effective training platform for postgraduates interested in becoming faculty members, developing teaching techniques in different lines of research, connecting research and teaching, promoting the development of undergraduate research skills and becoming independent and capable research mentors. Thus, the results of this study support the potential benefits of the CURE model for teaching and research training in Music Therapy and Music Education in the form of action research. The main theoretical references used by these authors were in the areas of Clinical Music Therapy, with Wheeler (2002) and Wheeler & Williams (2012); Educational Music Therapy, with Baker (2016; 2011); Ballantyne & Baker (2013), Murphy (2007), Goodman (2011), and Vega & Keith (2012). In Creative Music Therapy, with Aigen (2015a; 2015b); in Methodology, with Creswell (2014) and Strauss & Corbin (2015).

Other authors included in this topic were Kim et al. (2020). Their work was carried out in the area of *Hospice and Palliative Care*, that is, a place dedicated to the terminally ill and offering support at the end of life. This work aimed to train professional music therapists for this area of activity. The training program was developed in phases: implementation, development, analysis and evaluation. Requirements are planned for during the professional mentoring process for each phase. The standard education curriculum of the Central Hospice Center based on United States training courses was used for qualification and specialization of music therapists in palliative care. This is mixed method research, both qualitative and quantitative, carried out during training, to evaluate the effectiveness of the program. Pre- and post-training questionnaires were administered, and the t test was used to compare the mean values of the two groups. The students input data to a program designed to evaluate progress after each training. An analysis of pre- and post-responses showed significant improvements in scores in knowledge, self-confidence, and readiness for practice (Kim et al., 2020). The advantage of this professional education program is that it serves to meet the needs of patients and families with music therapy interventions the main focus of which is the patient, the contribution to the quality of care, in addition to continuing education. The theoretical references that stand out most in this article were located in the areas of Hospital Music Therapy, with Hilliard (2005; 2007), in Music Therapy and Palliative Care, with Baek (2019) and in Methodology, with Cohen (1988).

Moore & Wilhelm (2019) noted the lack of research on students' high levels of stress and burnout during clinical training in health professional training programs. Participants in this study were 371 students enrolled in music therapy programs approved by the American Music Therapy Association (AMTA). The Perceived Stress Scale – PSS (Cohen; Karmack; Mermelstein, 1983) and the Student Self-Care Scale (Silva; Kimura, 2002) were applied. Another aspect studied was the correlation between self-awareness of feelings that trigger stress and self-care practices. As a result, it was found that the lower the self-care, the greater the stress perceived by students. The theoretical references that stood out were in the area of Clinical Music Therapy, with Davis & Gfeller (2008); in Educational Music Therapy, with Goodman (2011) and Hearn (2017); and in the area of Methodology, with Creswell (2014), Cohen (1988) and Cohen & Karmack (1983).

The objective of the research by Situmorang, Mulawarman & Wibowo (2018) was to understand the effectiveness of implementing the counseling group in the Cognitive Behavioral Therapy (CBT) approach with passive and active Music Therapy techniques in reducing academic anxiety in students. The analytical technique used in this study is one-way analysis of variance (ANOVA) for repeated measurements using Microsoft Excel 2010 and IBM SPSS for Windows 23. The objective of using this analytical technique is to test the hypothesis in order to assess the difference in effectiveness of Cognitive Behavioral Therapy with passive Music Therapy and active Music Ther-

apy based on pre-test, post-test and follow-up data. A difference was noticed in the pre- and post-test results between group A (passive Music Therapy) and group B (active Music Therapy). It was found that active Music Therapy is more effective in reducing academic anxiety, compared to passive Music Therapy, corroborating other research in which active Music Therapy is shown to be more effective in treating anxiety and depression disorders. The theoretical references found were in the area of Educational Music Therapy, with Baker, Gleadhill & Dingle (2007), in the area of Hospital Music Therapy with, Vianna et al. (2011; 2012) and in Clinical Music Therapy, with Wigram (2002).

The literature review by Liu (2021) aimed to discuss the importance of taking into account the mental health of university students and pointing to forms of guidance in order to minimize losses in learning. The author highlights the need for educators to understand students' psychological barriers and the pressure to which they are subjected. Music Therapy is a strategy capable of helping students alleviate the anxiety of entering the job market, expectations for the future and social demands. As it is a self-expressive therapy, it allows the externalization of internal contents through a specific code, music. Comprehensive care for students' mental health needs to combine Music Therapy with counseling group forms of psychotherapy. The theoretical references focus on the areas of Mental Health: Blais-Rochette & Miranda (2016) and Chen et al. (2016).

In the work by Nascimento & Beggiato (2020), the objective was to survey the multiple factors that lead to undergraduate student dropout and propose actions that could improve, to some extent, the quality of the UNESPAR Music Therapy course. This research was developed with a mixed methodology, relating quantitative and qualitative data based on descriptive statistics. A semi-structured questionnaire with 14 items was administered to investigate the reasons for dropping out of the Music Therapy course. Each respondent could choose one to three options to justify the reasons for dropping out. The authors understand the complexity surrounding the issue of university dropout as a multidetermined event. In this study, financial difficulties appear as the main reason for abandoning/dropping out/giving up on the UNESPAR Music Therapy course. Having knowledge of this data helps to strengthen course retention policies. The theoretical references that stand out are concentrated in the areas of Educational Music Therapy, with Volpi (2006), and Methodology, with Minayo (2009), Gomes (2009) and Gil (2008).

Three authors discuss the theme *Music Therapy and Inclusive Education*, namely: Coombes (2019), Eren & Gul (2017) and McFerran, Crooke & Bolger (2017). Coombes (2019) proposes a music therapy model based on the anthropological theory of liminality and rites of passage. The study population consisted of students with multiple special needs and autism transitioning from high school to college. Music therapy interventions initially took place in the high school environment, in an inadequate room that was dark and had a lot of desks. As this physical space was not contributing to the music thera-

py process, the author found a new space, on the college campus, to continue the work, a large room, with glass windows, surrounded by a forest. This physical space, according to the author, helped students to take a new look at reality and contributed to providing life support for them. The author affirms that this transition to another space characterizes liminality as a rite of passage, surpassing limits and separation from the *ordinary*. This view suggests that making music in a stimulating environment, even with students' linguistic communication difficulties, can increase awareness of human coexistence with a significant intentional purpose, that is, being prepared to take on the responsibilities of adult life. Music Therapy carried out in groups provided new ways of relating, carrying out interpersonal exchanges, greater awareness of possibilities, despite the limits of disability, creating, improvising, making music together, in a space surrounded by nature. The musical experiences were able to offer new tools for participants to make the transition from high school to college. The theoretical references of these authors come from the area of Social and Community Music Therapy, with Kenny (2006) and Ruud (1995), Educational Music Therapy, with McFerran et al. (2019) and the field of Psychology, with Winnicott (1971).

In their research, Eren et al. (2017) used the participant observation method. The objective of this study was to contribute to the development of disadvantaged gypsy children, using musical activities based on the Orff Method⁵, such as playing instruments, singing songs, imitating and creating bodily and instrumental rhythmic patterns and expressing themselves through dance. In this research, the observation process took place in the natural environment of gypsy children. The activities were recorded and transcribed. A semi-structured interview was also carried out with the class teacher to obtain a broader perspective on the research process. Children's school absentee rates were very high. The results showed that musical activities were effective in supporting children's development in musical and non-musical areas. Musical activities increased motivation for school and attendance levels increased qualitatively and quantitatively. Musical activities increased children's awareness, self-esteem and understanding of their own culture. The theoretical references are in the area of Clinical Music Therapy with, Colwell et al. (2013), in Social and Community Music Therapy, with Hilliard (2007), in Methodology, with Dörnei (2007), Demirvuran (2007) and McLeod (2024).

The study by McFerran, Crooke & Bolger (2017) began with the guiding question: "How can music be used to promote student engagement in four different Australian schools?" (McFerran; Crooke; Bolger, 2017, p. 9). Action research was performed, in which the authors sought to identify the music programs of the four schools and proposed the carefully designed and personalized *MusicMatters* project. The objective of this exploratory study was to investigate how music programs can promote school engagement. Engagement in learning, among peers and with different members of the school community was identified. The characteristics of each type of pro-

gram differed according to the leadership style, expectations and degree of student involvement, as well as school structure. It was found that the greater the involvement of teachers in musical activities, the greater the involvement of students, the opposite was also observed. This research made it possible, through musical activities, to promote greater empathy with problematic students, new forms of relationship between teachers and students, talents being discovered, and an increase in interpersonal relationships. The theoretical references were in the area of Educational Music Therapy, with Baker and Jones (2006) and Bardsley (2007), and in Social and Community Music Therapy, with Ruud (2008).

We selected three articles by the following authors for the theme *Music Therapy and Educational Policies*: Salvador & Pasiali (2017), Santos Júnior, Caires & Fósforo (2018) and Smith (2017). In the article by Salvador & Pasiali (2017), a music teacher and a music therapist discuss Special Education policy and arts teaching in the municipality. To illustrate the gulf between federal and local policies regarding students with special needs and arts education, they examined intersections of music therapy and music education in relation to classrooms of students with moderate to severe special needs. The discussion focused on the quality of service delivery in relation to learning and resulted in the following recommendations: increase school administrators' understanding of Music Education, Inclusive Music Education, and Music Therapy; recognize music therapists as health professionals who can work alongside educators; enable the training of music educators to improve the teaching and learning of music for students with special needs. Based on the Individuals with Disabilities Education Act (IDEA), the authors reinforce the importance of teaching the arts in elementary schools and making them accessible to all children, including those with special needs. They also reaffirm the relevance of the integrated work of the music educator and the music therapist with these children, so that they can achieve progress in the general education curriculum. The theoretical references in the area of Creative Music Therapy were centered on Aigen (2014) and in the area of Educational Music Therapy, with Coleman & Brunk (2003).

The article by Santos Júnior, Caires & Fósforo (2018) seeks to reflect on the beneficial effects of Music Therapy in the Brazilian educational context, as an instrument for the individual's overall development. The authors discuss aspects related to the functioning of the Music discipline as proposed by the National Education Law (*Lei de Diretrizes e Bases da Educação Nacional* - LDB) and by the National Arts Curriculum Parameters (*Parâmetros Curriculares Nacionais de Artes* - PCNs) for elementary education. They highlight the importance of Music Therapy in the educational environment, both in regular and special education. They used a literature review as their methodology. Music Therapy in the educational context aims to promote health and rehabilitation. As it is a playful and pleasurable therapeutic activity, Music Therapy can facilitate teaching-learning processes in areas other than just music. Musical experiences, such as

exploring, improvising, listening, recreation and composition promote children's interaction with themselves and others; they develop psychomotricity; develop communication skills; it is a form of cognitive stimulation, affecting the body, mind and spirit all at the same time. In their research, Santos Júnior, Caires & Fósforo (2018) reaffirm the relevance of including qualified music therapists as part of the school team. The theoretical references of this article involve the area of Social Music Therapy, with Bruscia (2000) and Cunha & Volpi (2008) and the area of Music Education, with Brécia (2003) and Britto (2003).

Smith (2017) examines the roles of the music therapist and music educator in a public school in the northeast United States. The author chose this school due to the fact that there is little collaboration between music therapists and music educators in the case of students with special needs. In order to discuss these two disciplines (music education and music therapy) in this public school, and the relationships between them, the questions that guided the research were: what were the goals of the music teacher and music therapist for the students in their classrooms?; what were the perceptions of the music teacher regarding music therapy services in an educational setting?; what were the perceptions of the music therapist regarding student experiences in the music classroom?; in what ways did the music therapist and music educator collaborate, or not, to improve outcomes for students with special needs? The research data collection was achieved through a semi-structured interview carried out with four participants: the music teacher and the music therapist, who worked actively; the elementary and high school music coordinator and the director of the Regional Music Therapy Service, who observed the music teacher and the music therapist. Based on the observed data collected, a semi-structured interview was carried out with the music teacher and the music therapist. The author found that there is no communication between these professionals about the music therapy process and students' learning development. The conclusion was reached that there needs to be collaboration between everyone involved in the students' learning processes. Music Education and Music Therapy differ in their objectives: the former discipline has pedagogical objectives, content that must be learned, while Music Therapy seeks to reach the child in their own time, without the requirement for learning contained in a curriculum. The theoretical references of this article involve the area of Educational Music Therapy, with Jellison and Gainer (1995), Joseph (2009) and Kaplan & Steele (2005), Methodology, with Creswell (2013) and Maxwell (2005); and Music Education, with VanWeelden & Whipple (2013; 2014).

We found that the areas most used as a theoretical reference for research in the selected articles were: Educational Music Therapy, with fourteen authors: Pérez (2018), Pérez et al. (2015), Baker (2016; 2011; 2007; 2006), Ballantyne & Baker (2013), Murphy (2007), Goodman (2011), Vega & Keith (2012), McFerran, Crooke & Bolger (2017; 2019), Bardsley (2007), Hearn (2017), Volpi (2006), Coleman & Brunk

(2003), Jellison & Gainer (1995), Joseph (2009) and Kaplan & Steele (2005). In the area of Social and Community Music Therapy, nine authors were found, including: Cunha & Volpi (2008), Pasiali & Clark (2018), Gold et al. (2017), Hohmann et al. (2017), Bruscia, (1987; 1998; 2000), Kenny (2006), Ruud (1995; 2008), Stige, Elefant & Pavlicevic (2016) and Hilliard (2007). In the area of Clinical Music Therapy, four authors were found: Pavlicevic (2000), Wigram (2004; 2003; 2002), Wigram, Bonde & Pedersen (2011), Wheeler (2002, 2016), Wheeler and Williams (2012) and Davis et al. (2008). In the area of Hospital Music Therapy we found two relevant authors, Vianna et al. (2011; 2012) and Hilliard (2005; 2007). In the area of Neurological Music Therapy, there were two authors, Davis, Gfeller & Thaut (2000) and Gfeller (1984). In the area of Creative Music Therapy, only one author was found, Aigen (2015a; 2015b; 2014). A perspective of Music Therapy and Palliative Care was also identified in the work of Baek (2019).

In the area of Music Education, five relevant authors were identified: VanWeelden & Whipple (2013; 2014), Bréscia (2003), Britto (2003), Tafuri (1995; 2006) and Webster (2016). In the area of Educational Psychology, we found three authors: Vygotsky (1962), Stern, (1985; 2004), and Gardner (1994). In the area of Methodology, ten relevant authors were identified: Creswell (2014; 2013), Maxwell (2005), Strauss & Corbin (2015), Minayo (2009; 2006), Cohen (1988; 1983), Gomes (2009), Gil (2008), Dörnei (2007), Colwell et al. (2013) and McLeod (2024). In the area of Pediatrics, Carvalho (2006); in Neuroscience, Zatorre, (2012); in Psychology, Winnicott (1971). In the area of Mental Health, Blais-Rochette and Miranda (2016) and Chen et al. (2016) and, finally, in the area of Medical Education, Garcia et al. (2007).

Conclusion

What are the theoretical perspectives of Music Therapy and its educational proposals? In response to this question, given the categorization by themes, we analyzed theoretical reference articles relevant to both the area of Music Therapy and the area of Education. At least seven fields of Music Therapy were identified that dialogue with the area of Education: Educational, Social and Community Music Therapy, Clinical Music Therapy, Hospital Music Therapy, Neurological Music Therapy, Creative Music Therapy and incipient Palliative Care Music Therapy. In the area of Education, we identified at least three fields that interact with Music Therapy: Music Education, Educational Psychology and Medical Education. We found that the fields of study that permeate both areas: Methodology, Psychology, Neuroscience, Pediatrics and Mental Health.

Music Therapy, present in the school context, enhances the quality of the teaching and learning process. Its results, arising from professional interaction, are directed to a concept of soft technology, challenging the rigid norms of hard technology. The current educational challenge is to adapt and keep up with technological develop-

ment, preparing students for the transformations arising from technology, and also including education that is humanistic. As such, Music Therapy offers innovative applicability in the field of Education, favoring a more inclusive, holistic and student-centered learning environment.

Music Therapy contributes to the area of Education and is present in the school context, enhancing the quality of the teaching and learning process. It was possible to understand that the results of actions and knowledge in the interaction processes of exercising the profession can be directed to a concept of soft technology. Longstanding and rigid standards indicate a concept of hard technology. The challenge of Education today is to be able to adapt and follow technological development in order to prepare students for the transformations arising from technology, and also to include education that is humanistic. Therefore, in this scoping review, it was possible to identify that Music Therapy uses technologies to mediate its approaches, techniques and methods, which allow innovative applicability in the field of Education.

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Notes

- ¹ Musical interaction based on reflection (and free translation), project co-funded by the European Community under the theme Information and Communication Technologies (ICT) of the 7th Research and Development Program of the European Union (Commission's Seventh Framework Programme) (7PM / 2007-2013). For further information, visit the project's official website: <http://mirrorproject.eu/>. (Addressi; Bonfiglioli, 2017).
- ² The Emotional Intelligence Model proposed by Daniel Goleman (1996) considered five essential competencies: self-awareness, self-regulation, internal motivation, empathy and social skills.
- ³ According to Creswell (2014), in grounded theory, the researcher seeks to systematically develop a theory that explains the process, action or interaction on a topic (p. 79). This *process* or *action* has distinct steps or phases that occur over time, with movement, such as the development of an education program or the process of supporting faculty to become researchers (Creswell, 2014, p. 78).
- ⁴ According to McLaughlin (2020, p. 49), the CURE method involves learning experiences in which entire classes of students address a research question or problem with unknown results or solutions, that is, they develop a closer integration between teaching and research, contributing to the publication of research in scientific journals, and greater impact on research programs.
- ⁵ Carl Orff (1895-1982) a German composer, based his pedagogical approach on the principle of experimentation, where learning takes place by making and experiencing music. According to Orff (1930), musical development flows from the body as it creates and expresses the musicality of the human being. Awareness of this corporeality is the basis of active Musical Education, which enhances human development in its physical, psychological, sensorial and intellectual dimensions.

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