

The Use of Music as a Therapeutic Resource for Children with ASD

O Uso da Música Enquanto Recurso Terapêutico para Crianças com TEA
El Uso de la Música como Recurso Terapéutico para Niños con TEA

RESUMO

Objetivo: Este estudo analisou a percepção de cuidadoras sobre a contribuição da música no tratamento de crianças com TEA em um programa municipal. **Método:** Trata-se de pesquisa qualitativa, descritiva e transversal, realizada com nove cuidadoras primárias, por meio de entrevistas semiestruturadas e questionário sociodemográfico, analisados pela técnica de Bardin. **Resultados:** os resultados mostraram que, embora desconhecessem inicialmente a música como recurso terapêutico, as participantes relataram benefícios no desenvolvimento da comunicação, motricidade e socialização. Entre os desafios, destacaram-se a adaptação insuficiente do ambiente, a necessidade de vínculo com o terapeuta, a continuidade em casa e o tempo limitado de terapia. **Conclusão:** conclui-se que a música é percebida como recurso relevante, sobretudo na promoção da interação social e comunicativa.

DESCRIPTORIOS: Transtorno do espectro autista; Música; Terapia complementar; Cuidadores; Desenvolvimento infantil.

ABSTRACT

Objective: This study analyzed caregivers' perceptions of the contribution of music in the treatment of children with ASD in a municipal program. **Method:** A qualitative, descriptive, and cross-sectional study was conducted with nine primary caregivers, through semi-structured interviews and a sociodemographic questionnaire, analyzed using Bardin's Content Analysis technique. **Results:** The findings showed that although participants were initially unfamiliar with music as a therapeutic resource, they reported benefits in the development of communication, motor skills, and socialization. Challenges included insufficient adaptation of the therapeutic environment, the need for bonding with the therapist, continuity at home, and limited therapy time. **Conclusion:** Music is perceived as a relevant resource, especially in promoting social and communicative interaction.

DESCRIPTORS: Autism Spectrum Disorder; Music; Complementary Therapy; Caregivers; Child Development.

RESUMEN

Objetivo: Este estudio analizó la percepción de cuidadoras sobre la contribución de la música en el tratamiento de niños con TEA en un programa municipal. **Método:** Se trata de una investigación cualitativa, descriptiva y transversal, realizada con nueve cuidadoras primarias, a través de entrevistas semiestructuradas y un cuestionario sociodemográfico, analizados mediante la técnica de Análisis de Contenido de Bardin. **Resultados:** Los hallazgos mostraron que, aunque inicialmente las participantes desconocían la música como recurso terapéutico, informaron beneficios en el desarrollo de la comunicación, la motricidad y la socialización. Entre los desafíos se destacaron la insuficiente adaptación del entorno terapéutico, la necesidad de vínculo con el terapeuta, la continuidad en el hogar y el tiempo limitado de terapia. **Conclusión:** Se concluye que la música es percibida como un recurso relevante, especialmente en la promoción de la interacción social y comunicativa.

DESCRIPTORIOS: Trastorno del Espectro Autista; Música; Terapia Complementaria; Cuidadores; Desarrollo Infantil.

RECEIVED: 09/13/2025 APPROVED: 09/30/2025

How to cite this article: Matias EC, Souza LVR, Santos AA, Chaves JB, Ribeiro MC, Azevedo ARA. The Use of Music as a Therapeutic Resource for Children with ASD. *Saúde Coletiva* (Edição Brasileira) [Internet]. 2025 [acesso ano mês dia];16(101):17722-17731. Disponível em: DOI: 10.36489/saudecoletiva.2025v16i101p17722-17731

**Ewerton Cardoso Matias**

Master's Degree in Health Education (UFAL). Professor at the State University of Health Sciences of Alagoas
ORCID: <https://orcid.org/0009-0001-1020-626X>

**Lara Virgínia Romão Souza**

Bachelor's Degree in Occupational Therapy
ORCID: <https://orcid.org/0009-0004-6287-2389>

**Alynnne Acioli Santos**

Master's Degree in Psychology (USM). Professor at the State University of Health Sciences of Alagoas
ORCID: <https://orcid.org/0000-0003-2530-5161>

**Jéssica Bazilio Chaves**

Master's Degree in Psychology (UFAL). Occupational Therapist at the State Health Department of Alagoas
ORCID: <https://orcid.org/0000-0003-1395-8018>

**Mara Cristina Ribeiro**

Doctor of Science (USP), Professor at PPGSF/RE-NASF/UNCISAL
ORCID: <https://orcid.org/0000-0001-6963-8158>

**Anthony Rodrigo Antunes Azevedo**

Family Health Specialist (UNCISAL). Occupational Therapist at the Municipal Health Department of Recife
ORCID: <https://orcid.org/0000-0002-6811-8473>

INTRODUCTION

Autism Spectrum Disorder (ASD) is classified as a neurodevelopmental disorder in which individuals may present a range of conditions characterized by some level of social and communication impairment⁽¹⁾.

It is characterized by a condition in which basic changes in behavior and social interaction occur, presenting difficulties in communication, both verbal and nonverbal, cognitive changes, and restricted interests that are unique to the individual, demonstrating stereotypical and repetitive behaviors⁽²⁾.

Considering current intervention strategies for this population, music is considered an ally, as a therapeutic tool, to enhance skills, being a means of nonverbal expression that favors communication and the manifestation of feelings, in addition to facilitating interaction between therapist and patient⁽³⁾. Music can be considered a simple and innovative care technology, taking into account our musical culture, which facilitates the expression of emotions and makes it possible to focus on healthy aspects of the patient⁽⁴⁾.

However, evidence on how primary caregivers perceive musical interventions offered in municipal services is still limited. Given this, we sought to understand: what is the perception of primary caregivers about the contribu-

tion of music as a therapeutic resource for children with Autism Spectrum Disorder in a municipal program conducted by general health professionals?

Regarding the study's target audience, which consists of the primary caregiver of children with ASD, the literature presents several ways of categorizing them, considering the degree of kinship, nature of care, frequency of support, and living arrangements. The primary caregiver is described as the person who assumes primary or majority responsibility for care, performing this activity for at least six weeks each quarter, without remuneration⁽⁷⁾.

This study does not address music therapy, as it is a therapeutic practice exclusive to music therapists, but rather the use of music in the care of children with ASD⁽⁸⁾. The objective was to analyze caregivers' perceptions of the contribution of music as a therapeutic resource for children with ASD in a municipal program conducted by general health professionals, aiming to promote interaction, communication, and behavior through playfulness and musicality.

METHOD

This is an exploratory, cross-sectional study with a qualitative and descriptive approach. The sample was non-probabilistic, for convenience, composed of nine primary caregivers of children with Autism Spectrum Disorder

(ASD) participating in music sessions of the CresSer Autista program, developed at the Municipal Diagnostic Center of Murici-AL. The protocol was approved by the Research Ethics Committee of the State University of Health Sciences of Alagoas (CAAE: 73031423.70000.5011).

Caregivers of children with ASD participating in the music sessions were included; those absent on the day of data collection were excluded. After clarification of the objectives and procedures, participants signed the Free and Informed Consent Form.

Data collection took place between December 10 and 21, 2023, through semi-structured interviews and socio-demographic questionnaires. The interviews, lasting 5 to 10 minutes, were conducted individually at the session location, in a reserved, *calm* environment, and were recorded, transcribed in full, and analyzed using the Content Analysis technique proposed by Bardin⁽⁹⁾.

To preserve anonymity, participants were identified by numbers (01 to 09), in accordance with Resolutions 466/2012⁽¹⁰⁾ and 510/2016⁽¹¹⁾. The analysis followed the stages of pre-analysis, exploration of the material (coding and categorization), and treatment of the results, with interpretation based on relevant theoretical references.

RESULTS

Table 1 highlights the sociodemographic profile of the research partic-

ipants in terms of gender, age group, degree of kinship, level of education, economic classification, and time in the program.

Table 1- Characterization of the sociodemographic profile of caregivers, Alagoas, Brazil, 2023.

Participant	Gender	Age	Degree of kinship	Education	Economic classification	Time in the program
Caregiver 1	F	22	Mother	Secondary education	Average	1*6m
Caregiver 2	F	36	Mother	Higher education	High	8m
Caregiver 3	F	36	Mother	Secondary education	Average	1m
Caregiver 4	F	41	Mother	Secondary education	Good	3m
Caregiver 5	F	43	Mother	Secondary education	Average	2 ^a
Caregiver 6	F	46	Mother	Secondary education	Average	1 ^a
Caregiver 7	F	32	Mother	Secondary education	Average	3m
Caregiver 8	F	41	Mother	Secondary E.	Average	2m
Caregiver 9	F	33	Mother	Secondary education	Average	4m

Source: Study authors (2023).

As shown in Table 1, a total of nine female caregivers participated, aged between 22 and 46, all of whom were mothers, all with a high school education, and only one with a college degree. Most classified their respective incomes as average, and the length of time they had been in the program

ranged from 1 month to 2 years.

Based on the analysis of the material, the meeting and the caregivers' statements allowed for the visualization of themes and categories to support the research object, as exemplified in Table 2 below:

Table 2 – Themes and categories – Alagoas, Brazil, 2023

Themes	Categories
Prior knowledge about the use of music. The importance of music in treatment Inclusive therapeutic environment The uniqueness of the subject	The use of music as a therapeutic resource for children with ASD
Relationship between the use of music and the development of social skills Relationship between the use of music and the development of social skills Relationship between the use of music and the development of daily demands Music as complementary therapy	Attributions to the use of music for the development of communication, social interaction, and daily demands.

Source: Authors of the study (2023).

The criteria considered for the formation of the themes and categories shown in the table above were related to the relevance, frequency, and intensity of the statements, as this was indicative of the research method itself. A total of two categories were identified, described as: 1) The

use of music as a therapeutic resource, and 2) Attributions to the use of music for the development of communication, social interaction, and daily demands.

The use of music as a therapeutic resource for children with ASD

When asked about the importance

and prior knowledge of the use of music as a therapeutic tool, the participants reported initial ignorance and perceived the resource as a form of distraction. Some reports:

I was unaware of its importance. I brought it because he was spending too much time at home, in bed, not going out... (C9)

I had already heard about it, and when I found out it was available here, I decided to try it (C5)

Look, I had no prior knowledge about the use of music in treatment... (C7)

No, no. I didn't have anything (C1)

The caregivers emphasized that music evokes positive feelings and aids in the cognitive, motor, and communication development of children. They also mentioned the importance of an adapted and welcoming therapeutic environment and the establishment of a bond between therapist and child, which contribute to the active participation and satisfaction of the family:

And I think that for them, the motor skills aspect is very important, as well as listening, singing, and repeating the music. I think it's very important. (C2)

Well... he is very reluctant. The room is not adapted for music therapy... (C3)

Attributions to the use of music for the development of communication, social interaction, and daily demands

When asked about the development of children's communication after music therapy, the participants were able to describe positive changes and progress, with only one caregiver not noticing any improvement, as shown below:

Yes, he was before, when... until he was 5, he didn't speak. He just screamed or talked and we didn't understand anything. But after he started speech therapy, he improved. Over time, I think he started music, I think he was about seven or eight. Then he evolved more. Today he's... chatty. (C2)

Yes, it's great. It's great, she's making

good progress. (C5)

Yes, because he didn't speak, and thanks to the support he gets with both music and speech therapy, his speech is developing much better. (C7)

Okay. Yeah, because it's not just the sound. He already... he already knows, it's... it's... Like, he uses sound and through sound he's already communicating, working on his speech. (C6)

No, not with regard to music, no. No, not at all. Through other therapies, speech therapy, occupational therapy, and psychology, right? (C3)

According to the statements, it is clear that the considerations are unique. C2 and C7 relate the expansion of communication to speech therapy and music. C5 realizes that the child is making good progress, as she points out. C6 reports that her child is evolving and describes the music processes for evolution in this area. However, C3 does not link communication development to music, as she believes that the progress achieved is due to speech therapy, occupational therapy, and psychology.

Regarding social skills, they report the children's difficulty in interacting and taking the initiative to communicate and play, as well as their difficulty in tolerating crowded environments and interacting with other people. However, there were statements demonstrating the positive aspects of progress in this area.

I thought so, especially after I started bringing him here. He was a little closed off with people, but then he improved. (C1)

Gradually, yes. (C3)

Uh-huh. Talking, laughing more, he used to be more closed off, right? (C9)

Okay. You're kidding. For the first time, she asked me to go to the square. There was an event in the square. And the school is in the square. She doesn't like crowds. She hates crowded places. And for the first time, she asked me because there was going to be music, and the music teacher was going to sing. (C5)

My son is like that, he arrives and

accepts a hello and then disappears. Or sometimes he arrives and keeps pulling away (...) But anyway, it's rare for him to sit down and ask to play. (C2)

Yes. Not much yet, but we are seeing that he is already learning to get closer. (C7)

As reported in the statements, C1, C3, and C9 affirm that their children are interacting more with other people, that their facial expressions are changing, that before they did not smile so easily, and that the change was significant after the start of therapy, as stated by C1.

As described above, the mothers reported the particularities, difficulties, and progress in communication, social interaction, and the performance of daily activities.

When asked about the roles they mentioned in relation to the use of music in treatment, in terms of communication development, socialization, and daily demands, five participants stated that their children's progress was not only due to music therapy, but also to the set of approaches and professionals involved, such as speech therapy, occupational therapy, psychology, and music therapy. According to their perceptions, the use of music in treatment facilitates this process and is related to complementary therapy, as mentioned below.

Also (low tone) as a mixture of everything, right? It's a complement, right? Because there are times when he makes music, he does jiu-jitsu, he has OT... Then one complements the other. That's good. (C2)

In general, yes. Music came to add to it. (C1)

As I said, it's not just the music, these developments are due to the therapies he has been doing. That's what I perceive, right? (C3)

From music and therapy, right? Because she hasn't been doing music for very long. Maybe if she had been doing music for longer, I could see greater development. As I explained, because she's just starting out now, between her and the other kids too, the teacher notices that she's very re-

sourceful, she tries, she always tries to follow what he's teaching, for this function and such. She has difficulties because she hasn't been doing it for long, but I believe that in a few days... she'll be playing a complete little song. He said she's already picked up a few notes (laughs). (C8)

DISCUSSION

The results show that, although most caregivers had no prior knowledge of music as a therapeutic resource, they recognized its potential to promote the development of children with ASD.

The literature corroborates these perceptions, pointing out that musical experience promotes neurophysiological, psychological, motor, and cognitive processes, in addition to stimulating socialization and affectivity^(12,13). Music also aids in the development of complex processes, such as attention, memory, planning, and motor control, and is considered a resource capable of expanding experiences in different areas of development^(12,14).

Another relevant aspect refers to the adaptation of the therapeutic environment. The participants reported the importance of welcoming and attractive spaces for the child, which converges with evidence that reinforces the need for therapeutic contexts favorable to the active participation of children⁽¹³⁾.

Personalized care was also valued, given that children with ASD have varying symptoms and levels. The literature reinforces that music therapy should consider the uniqueness of the individual, respecting their potential, difficulties, and preferences⁽¹³⁾.

In the emotional realm, music was perceived as facilitating the expression of feelings and promoting well-being. Studies show that music therapy enables expressions of joy, relaxation, and inner peace, reinforcing its humanized character⁽¹⁵⁾.

In the social aspect, music is a language that stimulates synapses, benefiting interaction, speech, and communication⁽¹⁶⁾. Neuroscience research proves that sound stimuli are associated with physiological

and emotional responses, favoring socialization and adaptation to the environment⁽¹⁷⁾.

Despite its value, caregivers understand music as part of a set of complementary therapies. This understanding converges with the National Policy for the Protection of the Rights of Persons with ASD (Law No. 12,764/2012), which provides for multidisciplinary care, and with the National Policy for Integrative and Complementary Health Practices (PNPIC), which recognizes music therapy as a complementary approach in the Unified Health System^(18,19).

Finally, the findings of this study corroborate research that highlights musical intervention as a promoter of socializa-

tion, verbal and nonverbal communication, self-expression, and manifestation of subjectivity, contributing significantly to the quality of life of children with ASD⁽²⁰⁾.

CONCLUSION

The caregivers' perceptions revealed unique experiences related to the diagnosis and treatment of their children. The reports highlighted advances in the children's skills through multidisciplinary therapies, recognizing music as a relevant but complementary resource. The difficulty of some participants in identifying progress may be associated with the recent inclusion of children in the program, the lack of continuity of activities at home,

the limited hours of therapy, the need to strengthen the therapeutic bond, and the constant updating of the music professional in view of the specificities of ASD.

Among the limitations of the study, the small number of participants (nine caregivers) stands out, which restricts the generalization of the results. Nevertheless, it is observed that music has become increasingly present in the care of children with ASD, presenting benefits especially in social and communication skills. In this sense, the relevance of expanding field research investigating the effectiveness of music as a therapeutic resource in the treatment of autism spectrum disorder is reinforced.

REFERENCES

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (DSM-5). 5th ed. Washington: APA; 2014.
2. Xavier M. Transtorno do Espectro Autista: desafios e perspectivas. 2023.
3. Padilha M. A música como recurso terapêutico. 2008.
4. Bergold LB, Alvim NAT. A música como recurso terapêutico: um olhar sobre sua utilização em enfermagem. *Rev Bras Enferm*. 2009;62(4):552-5.
5. Silva RA. Música, cérebro e emoção: interfaces terapêuticas. 2008.
6. Sekeff ML. Da música: seu significado e valor. São Paulo: Edusp; 2002.
7. Saraiva K. O cuidador primário: definições e responsabilidades. 2008.
8. Franzoi MAH, Martins JT, Ribeiro RP, Bobroff MCC. Musicoterapia: possibilidades terapêuticas no cuidado em saúde. *Rev Rene*. 2016;17(6):873-80.
9. Bardin L. Análise de conteúdo. São Paulo: Edições 70; 2016.
10. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução nº 466, de 12 de dezembro de 2012. Aprova as diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Brasília, DF: CNS; 2012.
11. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução nº 510, de 07 de abril de 2016. Dispõe sobre as normas aplicáveis a pesquisas em Ciências Humanas e Sociais. Brasília, DF: CNS; 2016.
12. Padilha M. A música como recurso terapêutico. São Paulo: Loyola; 2008.
13. Freire S. Música e autismo: contribuições terapêuticas. Rio de Janeiro: Wak; 2014.
14. Reis M, Silva T, Andrade F. Comunicação e interação em crianças com TEA: desafios e perspectivas. *Rev Bras Educ Espec*. 2016;22(3):345-58.
15. Pimentel A, Souza D, Rocha L. Musicoterapia e desenvolvimento infantil. *Rev Musicoter Bras*. 2011;6(2):45-53.
16. Filho J. Música e cérebro: conexões terapêuticas. São Paulo: Summus; 2019.
17. Sampaio T, Oliveira R, Lima C. Música, neurociência e emoções: uma revisão. *Rev Neurocienc*. 2015;23(1):102-9.
18. Brasil. Lei nº 12.764, de 27 de dezembro de 2012. Institui a Política Nacional de Proteção dos Direitos da Pessoa com Transtorno do Espectro Autista. *Diário Oficial da União*. 2012 dez 27.
19. Brasil. Ministério da Saúde. Portaria nº 971, de 3 de maio de 2006. Aprova a Política Nacional de Práticas Integrativas e Complementares (PNPIC) no Sistema Único de Saúde. *Diário Oficial da União*. 2006 mai 4.
20. Franzoi A, Silva M, Corrêa P. Intervenções musicais e desenvolvimento infantil no TEA. *Rev Psicol Saúde*. 2016;8(1):55-67.