

The Influence of Music Education on Children with Autism

Wanying Liang

Carthage College, United States

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Abstract: Children with autism have different degrees of mental development disorders, which are specifically manifested as sluggish behavior and lack of language. Music has many similarities with language, which can slowly open up the heart of children, reorganize and improve their emotions and interpersonal skills. The essay explores the influence of music activities on children with autism through literature review, visits and surveys, questionnaire surveys.

1. Introduction

Autism, is also called Autism Spectrum Disorder (ASD), is characterized by difficulties in social interaction and communication, narrow interests and rigid behavior patterns. According to statistics from the American Academy of Child and Adolescent Psychiatry, the prevalence of autism is 1:600. Music, as an intervention medium, has many similarities with language. Music can slowly open the heart of children, restructure and improve their emotions and interpersonal skills. Therefore, it is of great practical significance to study how to improve the condition of autistic children through music education. This essay will firstly discuss the impact of music education on children with autism. Following this, it will explain the current situation of music education for children with autism through field research and online questionnaire. Finally, it will look at how to improve the effect of music education on children with autism.

2. The Impact of Music Education on Children with Autism

2.1 The Promotion of Cognitive Function of Children with Autism

For children with autism, the level of cognitive ability is an important indicator of whether autism can be improved. The most significant effect of music education is to improve the cognitive ability of children with autism. Children with autism often play with themselves, rarely make eye contact with others, and rarely respond to external stimuli. However, music can arouse children's interest, develop their attentions and increase the frequency and duration of attention (Shahabet.al, 2021).

2.2 The Control of Psychological and Emotional Management of Autistic Children

In the music environment, the mood of autistic children is relatively stable, and some children may even be happy (Draper,2020) . According to relevant statistics, after a period of music education, the frequency of negative emotions and self-harmful behaviors of children with autism has decreased.

2.3 The Improvement of Social Communication for Autistic Children

With the help of music education, teachers exercise the frequency and duration of eye contact between autistic children and people through the guidance of music. For example, when organizing Orff's music games, many children never knew how to join, and after familiarizing themselves with the rules of the game, they obviously showed willingness to participate actively(PEKTAŞ,2016).

2.4 Inducing the Language Expression Ability of Children with Autism

The inducing effect of language in music education on children with autism is similar to infant language inducing (Bearss *et al*,2015). Music has a certain auxiliary role in children's memory. In music activities, sentences that need to be mastered by autistic children can be written into lyrics and sung, which can imperceptibly cultivate and exercise the language ability of autistic children (Vailland *et al*,2020).

2.5 The Improvement of the Coordination and Unity of Autistic Children's Behavior

In music teaching, it emphasizes the interaction between teachers and autistic children. This interaction includes the use of different musical instruments, or various forms of body movements (Fong&Jelas,2010).. In the rhythm of music, children with autism can follow the music to perform simple movements such as clapping, stomping, and turning in circles. With the increase of music intervention time, the time of physical activity of children with autism will also increase (Amyet *all*,2020).

3. The Current Situation of Music Education for Children with Autism

This study mainly used questionnaire surveys and field research methods to investigate the music education of children with autism in the United States. It mainly investigates the current impact of music education on the physiology and behavior of autistic children, and then analyzes the current situation of music education and analyzes its existence In order to provide targeted improvement suggestions. In this study, 177 questionnaires were distributed and 177 were retrieved. The effective number was 177. The data was analyzed through the SPSS software. For details, see Questionnaire 1.

3.1 Basic Issue

Through the questionnaire survey, the basic situation of children with autism can be understood. The detailed information is shown in Table 1. Most of children with autism are fond of music, they are obviously cheerful to their favorite concerts, even playing them repeatedly, which shows that music does have a positive effect on improving their mood. However, the situation is not optimistic. At present, many parents do not pay attention to this phenomenon and do not realize the practical significance of music for children with autism. In addition, most children have not learned music before they get sick, so it is significant to explore effective measures for music education for children with autism.

1. What is the child's age?	0-2 years old	26.74
	3 to 5 years old	52.41
	6 to 11 years of age	20.85
2.What is the sex of the child?	Male	65.87
	Female	34.13
3.What is the age at the beginning of children's disease?	0-2 years old	46.87
	3 to 5 years old	28.79
	6 to 11 years of age	24.34
4.What's the attitude of children towards music nowadays?	love	78.85
	disgust	6.41
	no effect	14.74
5.Did the child learn dance, vocal music, singing and other arts before the illness?	Yes	28.74
	No	71.26
6.Does the child have a favorite song?	Yes	68.97
	No	31.03
7.Do children play their favorite songs over and over?	Yes	63.41
	No	36.59
8. Sing to her (him), does the child's mood change?	no change	32.54
	excited, happy, mood stretch	67.46
9.Do you sing or play some songs to your child before going to bed?	Yes	24.41
	No	75.59

3.2 The Influence of Music Education on Children

Music lessons do have a positive impact on the behavior and psychology of children with autism. First of all, in terms of psychology, music education has a good effect on the confidence of autistic children from the number of communication with classmates increasing. Music makes them feel happy and makes them want to communicate with others actively, which plays an extremely key role in the rehabilitation of autism. At the same time, in terms of behavior, children with autism show a certain degree of initiative through the study of music courses, such as willingness to express their ideas to family members, classmates, and teachers. The vast majority of children with autism have significantly improved their language expression skills, hands-on practice skills, and comprehension skills. It shows that music education has a more obvious effect in the treatment of children with autism.

1.What types of music courses are offered by the school ()	Singing practice	41.54
	Musical sense exercises	35.24
	Dance training	10.00
	Instrumental music learning	13.22
2.After learning music, which ability of the child changes significantly ()	The ability to remember lyrics, dance,melody, etc.;	42.12
	Clap or stomp according to the rhythm of the song;	29.84
	The ability to communicate with classmates;	26.54
	Logical thinking	1.52
3.After learning, can children accurately pick up the projectile ()	Yes	80.24
	No	19.76
4.After music learning, how often does the child communicate with you ()	Significant increase	63.44
	No obvious change	36.41
	Decrease	0.15

5.After music learning, how often does the child actively communicate with classmates ()	Significant increase	67.54
	No obvious change	26.41
	Decrease	6.05
6.After music learning, how does the child's self-care ability change ()	Significant increase	68.74
	No obvious change	26.41
	Decrease	4.85
7.After music learning, how does the child's ability to actively express ideas change ()	Significant increase	75.74
	No obvious change	22.61
	Decrease	1.65

3.3 Investigation on the Environment of Children Learning Music

Most parents think that music education is useful for children with autism. However, the cost of children's expenditure and education has become a burden for many families. Moreover, the cost of music education for children with autism is more expensive, which has exceeded the income of most families. It shows that the education work of this group needs support from the government and society.

1.What is your education level ()?	Father: primary school and below;	12.52
	middle school	48.64
	Bachelor degree or above	38.84
	Instrumental music learning	11.57
	Mather: primary school and below;	52.41
	middle school	36.02
2.How often do you sing with your children?	Bachelor degree or above	36.84
	Every day	36.84
	three or four days	42.78
3.How often do you sing songs and play games with your children?	Over one week	20.38
	Within half an hour	34.14
	0.5-1 h	56.98
4.Do you agree or disagree () that children should take part in music study?	more than 1 h	8.88
	Yes	79.85
	No	20.15
5.Do you spend on your children as a percentage of your family's ()?	a quarter	12.1
	1/2	46.98
	3/4	23.59
	more than three quarters of	17.33
6.After music learning, how does the child's self-care ability change ()	Yes	26.78
	No	73.22
7.Which of the following schools do you recommend your child to study in ()?	ordinary schools	3.41
	community schools	22.51
	special education schools	35.54
	Autism School	38.54

4. How to Improve the Effect of Music Education on Children with Autism

Children with autism need the joint attention of parents, heads of educational institutions and society on music education. It should explore more scientific and more suitable music education methods for children with autism through a variety of music teaching methods, personalized teaching content, professional music teachers, interesting music practice activities, and so on. At the

same time, music is the art of sound. However, for children with autism, not all music is suitable and music works need to be selected with special care.

5. Conclusion

It takes the current status of music education for children with autism as the starting point of the investigation. Through investigation and research on the development and impact of music education for children with autism in the United States, it puts forward measures and suggestions for the implementation of music education for children with autism, such as formulating overall teaching strategies and appropriate music activities. There is every reason to believe that under the joint attention of parents, educational institutions and the whole society, music education will help more children with autism to reduce the troubles in their lives and gradually succeed.

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