

Promoting Language Perception in Children with ASD Through Targeted Teaching Methods

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Abstract: This paper involves a multi-national and multi-language scope based on research papers that have already been published, which delves into the intricate status of language acquisition of children with Autism Spectrum Disorder (ASD), focusing on the specific problems these children encounter, their distinct language learning needs, and the interventions that have proven effective. Given the communication difficulties inherent in ASD, understanding and addressing these challenges is vital for promoting language development. This essay synthesizes findings from multiple studies analyzing monolingual and bilingual language development in children with autism, aiming to address key research questions: What interventions effectively support language development and social communication needs in children with autism, and what are the characteristics of these interventions? Additionally, the paper explores whether bilingualism presents additional challenges or offers benefits for children with ASD. Findings shows that while bilingualism does not negatively impact language acquisition, targeted interventions are crucial for facilitating language development. And even the bilingual education itself is an effective method for improving the development of language acquisition of children with autism, whether in domains of monolingual or bilingual education.

Keywords: ASD, Language Acquisition, Bilingualism, Intervention, Children

1. Introduction

Language acquisition is a particularly important aspect of children's development in their early lives, serving as the basic foundation for their communication skills, cognitive growth, and social interaction ability. For children with Autism Spectrum Disorder (ASD), however, this process is full filled with challenges that give significant impact to their ability of communicating effectively. ASD is a kind of neurodevelopmental disorder, which characteristics are having deficiencies in communication, and having restricted and repetitive behaviors, and sensitive emotions. These characteristics usually presents in delayed language development, pragmatic difficulties, and other communication challenges that can hinder both verbal and non-verbal expressions [1].

As the ASD continues its prevalence globally, and which is into an upward trend, it is becoming increasingly important to understand the specific needs of these groups in terms of their language acquisition development. It is the growing number of children with ASD who are raised in bilingual environments that complicates the matter this article talked above. Bilingualism, although beneficial in many respects, can make the progress of language acquisition for children with autism spectrum more complex. Some educators and parents feel anxious that multiple language education might

exacerbate communication difficulties in their children's language learning, while there are some different views argue that bilingualism can enhance cognitive flexibility and language acquisition skills in children with ASD [2].

Previous studies have shown that early language development of children with ASD in a monolingual educational environment is often slower than their typically developing peers, with characteristics such as echolalia and problems in learning semantics, syntax, and pragmatics [3]. More recent research has begun to study the impacts of bilingual education on children with ASD, with findings indicating that bilingual education might enhance cognitive skills and pragmatic abilities in these atypical children. However, the continued research on the effects of bilingualism on language development in ASD is still needed [4].

The paper *Interventions for early language development in monolingual and bilingual children with autism spectrum disorders* written by Dosi and Savvas mentioned that studies shows that bilingualism can enhance cognitive and pragmatic abilities in children with ASD, underscoring the importance of supporting bilingual development in early interventions. Their findings indicated that the bilingual child showed faster progress in language and cognitive development compared to the monolingual child [5]. Specifically, the bilingual child demonstrated quicker improvements in terms of learning phonology, vocabulary, semantics, and pragmatics. The bilingual child also exhibited better cognitive abilities, such as a longer attention span and stronger inhibitory control. Their findings support the positive impact of bilingualism on language development in children with ASD. Hence, this essay proposes that bilingual education itself is an effective intervention for the language acquisition of children with ASD, whether in aspects of monolingual or bilingual leaning.

This essay seeks to explore these issues by synthesizing research on language acquisition in children with ASD, with a particular focus on interventions designed to address their unique communication needs. The systematic review addresses two key research questions: 1. What research has been done which demonstrates whether there are effective interventions aimed at support the language and communication needs of children with ASD? What is the nature and extent of research demonstrating effective interventions for children with ASD? 2. 1) Have there been interventions that have warded children's language and communication difficulties when they have ASD? 2) And if so, what do they like? What are the features of those interventions.

2. Problems in language acquisition for children with ASD

Children with ASD face a range of challenges in acquiring language, which often distinguishes their learning process from that of neurotypical children. These challenges include:

2.1. Delayed speech onset

Research indicates that many children with ASD have significant delays in the onset of speech, with some remaining minimally verbal or non-verbal throughout their lives [6]. This delay can be attributed to various factors, including deficits in social communication, sensory processing issues, and challenges with motor planning required for speech production. Delayed speech onset not just affects the child's ability to express needs and desires but also hinders social interaction and cognitive development.

2.2. Pragmatic language difficulties

Pragmatics refers to the use of language in social contexts, including understanding conversational norms, interpreting non-verbal cues, and using language appropriately in different situations. Children with autism disorder often have serious difficulties with pragmatic function, leading to difficulties in understanding social communication cues, maintaining conversations, and interpreting

figurative language [7]. These pragmatic deficits can result in social isolation and misunderstandings, further complicating the child's ability to form relationships and interaction with their peers.

2.3. Echolalia and repetitive speech

Echolalia, which means the repetition of words or phrases spoken by others, is one of the usual features of language development in children with ASD. Although echolalia can serve as a stepping stone to the use of some functional language, it cannot be denied that it is a barrier to meaningful communication if not properly addressed [8]. Repetitive speech patterns, such as scripting (repeating lines from movies or TV shows), may also interfere with the development of language acquisition and hinder the children's ability to engage in normal communication.

2.4. Difficulty with syntax and morphology

Syntax (sentence structure) and morphology (word formation) are commonly acknowledged as two consistently-impaired domains in ASD. Studies have shown that children with ASD are more likely to have difficulties in constructing correct sentences grammatically, using verb tenses appropriately, and understanding complex sentence structures [9]. The above factors can impede both language comprehension and production abilities of children with ASD, and restrict their development of communication skills.

2.5. Sensory sensitivities and language processing

Many children with ASD have higher sensitivities that can interfere their abilities to use auditory information. Over-sensitivity to hearing may disturb a child to focus on spoken language in noisy environments [10].

3. Effective teaching methods and tools

Numerous teaching methods have been identified as effective in promoting language acquisition in children with ASD. These methods are designed to address the unique challenges faced by these children and to enhance their communication skills through targeted, individualized interventions. Key methods include:

3.1. Visual communication systems

Visual communication systems, such as Picture Exchange Communication System (PECS) uses picture cards to help non-verbal or minimally verbal children communicate their needs and preferences [5], which includes pictures, symbols, and gestures that are essential for supporting the daily communication of children with ASD, and the tools mentioned above have been widely recognized as effective tools for promoting language acquisition development of children with ASD. These visual supports can help bridge the gap between spoken language and comprehension, and enable children to understand and express themselves more effectively. PECS allows children to use pictures to express their needs and desires, providing alternative means of communication for those who struggle with verbal language. Hence, this system not only improves communication but also helps reduce behavioral issues related to frustration from being unable to express oneself and enhance social interaction.

3.2. Naturalistic Developmental Behavioral Interventions (NDBI)

NDBI is an approach that integrates behavioral strategies with developmental principles to promote language development in a naturalistic context [6]. Intervention is life, and life is intervention. Every detail of life can be a part of intervention to promote a child's development. This is one of the important concepts of Developmental Behavior Intervention (NDBI) in Natural Contexts. This method emphasizes the importance of child-initiated interactions and the use of natural consequences to reinforce language learning. In settings of daily living, such as family, community, or school, specific interventions need to be tailored to the core characteristics of children with autism, such as social communication impairment and lack of social interest. The main goal of intervention in children with autism should be to promote their social development and improve their social skills, such as social motivation, shared attention, emotional interaction and imitation. In this way, children's social interest and motivation are stimulated, and they are encouraged to actively participate in social activities, experience happiness in these interactions, and gradually enhance their love and acceptance of social activities, hence it can increase spontaneous communication and use of language in children with autism, particularly when implemented in everyday routines and activities.

3.3. Structured and predictable learning environments

Consistency and predictability are critical for children with ASD, as they thrive in environments where routines and expectations are clear. Structured learning environments that incorporate visual schedules, clear instructions, and consistent reinforcement strategies can help reduce anxiety and improve language learning outcomes. Moreover, predictable routines can create a sense of security that allows children to focus on language acquisition without being overwhelmed by uncertainty.

3.4. Bilingual language immersion

For children with ASD grew up under bilingual education, exposing to two different languages can get their language acquisition ability developed by the help of language immersion programs. These programs can develop bilingual children's proficiency in both languages simultaneously. Studies have shown that bilingual children with ASD can achieve comparable language outcomes with their monolingual peers if the educational environment they have can support their bilingual learning's development effectively [2].

3.5. Social communication interventions

Social communication interventions, focusing on improving the social communication ability of children with ASD, are particularly beneficial for developing their language acquisition skills and abilities. These interventions are often aim at developing cognitive skills such as communicational concentration and conversational reciprocity, which are pretty important for atypical children's effective communications [7]. Programs like PECS and Social communication interventions are all effective narrative-based approaches to improve social communication skills of children, and teaching methods like these are really enormous help to atypical children's language learning.

3.6. Tailored bilingual education

There are also many other additional challenges in language learning of children who have an autism experience, but they also may have more superiorities in cognitive and linguistic development. Previous research findings suggest that bilingualism does not hinder the development of children's language acquisition, but it does require tailored approaches that cater to the child's specific communication needs in both languages [4]. Bilingual education can provide consistent exposure to

two languages, it can better support children's language development if it can accommodate the children's learning pace and special needs.

3.7. Technology-assisted interventions

High-tech language intervention methods are increasingly popular with the emergence of teaching apps and computer programs in recent years. These teaching tools can be particularly helpful for children with ASD because of its interesting, it can make children feel learning process is full of happiness, for example, language learning apps contain plenty of visual and auditory stimulus, interactive games, and timely personalized feedbacks, all of these can support language acquisition in a more interesting way.

3.8. Play-based interventions

Play-based teaching interventions, which teach through lively activities, have also been proven avail to help children get their language acquisition abilities improved. These interventions take advantage of children's natural interest and intellectual curiosity to promote their language communication abilities in a light-hearted and witty way by integrating language learning into game activities.

4. Conclusion

The findings suggest that children with ASD can develop their language acquisition skills through targeted interventions. When using divers teaching methods to help children with their language acquisition development, it need to meet their individual needs. Children with ASD have their own challenges in language acquisition progress that require tailored teaching methods and tools. Targeted teaching interventions, such as visual communication tools and bilingual immersion teaching method, are huge helps to children with ASD with their language learning. Further research that combine bilingualism and autism together, as well as continuous attention about the long-term effects of the teaching interventions mentioned are needed . And we can help children with ASD reach their full potential and improve their overall quality of life though this type of research.

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