

The Urgency of Speech Therapy Services to Overcome Social Communication Problems in Autistic Children: Systematic Literature Review

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Article Info

Article history:

Received September 07th, 2024

Revised Oktober 21st, 2024

Accepted November 26th, 2024

Keywords:

Autistic children

Speech therapy

Social communication

ABSTRACT

Background: Autism spectrum disorder is a biologically based neurodevelopmental disorder that affects a child's social interaction and communication skills. The main problems can be identified in two domains: communication/social interaction and restrictive and repetitive behaviour patterns. Autism spectrum disorder experiences significant social communication challenges that affect major areas of life, including Education and the community environment. With these problems, services are needed that can address the communication problems of autistic children, namely speech therapy.

Method: This study used a systematic and reported design by the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines. The systematic literature review search strategy was conducted using a database of Scopus-indexed journals in Q1-Q4. Articles searched for from 2019-2024 through the elicitor.com search system. The protocol for searching for articles that match the study topic in this study uses keywords to provide higher accuracy, namely "speech therapy OR language therapy AND social communication AND autism OR ASD". The study search was limited from 2019 to 2024.

Result: Based on the study above, it can be seen that speech therapy services are essential for developing social communication in autistic children. The studies are still fascinating, as evidenced by the increasing research on speech therapy services for autism in 2024, where 46 studies were conducted worldwide. The largest country is the United States, with 73 studies. These results can be used as our reference for researching what forms of speech therapy services can benefit autistic children so that they can develop optimally in society and schools later.

Conclusion: These results can be used as our following reference, which will research what forms of speech therapy services can benefit autistic children to develop optimally in society and schools later. Speech therapy services carried out early on, and parental support are the core of successful therapy for autistic children who can have the same social abilities as other normal children.

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INTRODUCTION

Communication is an essential life skill, and communication difficulties can have detrimental effects, including poor academic achievement, behavioural difficulties, and reduced quality of life. Autism spectrum disorder is a biologically based neurodevelopmental disorder that affects a child's social interaction and communication skills (Ibrahimagic et al., 2021). The main problems can be identified in two domains: communication/social interaction and restrictive and repetitive behaviour patterns (Ibrahimagic et al., 2021). In this case, assessment is necessary to identify different levels of social communication in children with autism (Hage et al., 2021). Autism spectrum disorder is estimated to have a prevalence of around 1.7% of the population. People with ASD often also have language difficulties, and around 25% to 30% of children with ASD fail to develop functional language or have only minimal verbal skills (Brignell et al., 2018). Children with autism spectrum disorder exhibit difficulties in social communication behaviour, emotion regulation, and daily living skills (Laister et al., 2021). Social communication is one of the main areas of impairment in cases of individuals with autism spectrum disorder (Pascoe et al., 2023; APA, 2013). Social communication difficulties include verbal and non-verbal reciprocal social interaction challenges (APA, 2013; Lord et al., 2012). Social communication difficulties experienced by individuals with autism commonly include poor eye contact, lack of joint attention, atypical behaviours and speech patterns, difficulty interpreting body language, and reduced initiation and understanding of social interactions (APA, 2013; Yeo & Teng, 2015). Their communication skill difficulties are taking the initiative in talking to others, asking questions, taking turns in conversation, self-expression using spoken language, clarity in speech, showing eye contact, loudness in speech, and facial expressions (Cerbo & Rabi, 2019). These difficulties negatively impact functionality, social relationships, and emotional well-being (Sturrock, 2022). Autism spectrum disorders experience significant social communication challenges that impact key areas of life, including Education and the community environment (Wilson et al., 2021). Communication skill difficulties are one of the factors that hinder the learning process of children with autism (Cerbo & Rabi, 2019). Many children with autism spectrum disorders have many problems with social communication and social interactions, which hinder their academic and personal lives (Tawalah & Gaber, 2023).

Social communication in autism requires early intervention strategies to support social communication (Osman et al., 2023). Early intervention strategies that appear most promising for positively impacting social communication support shared engagement routines and are implemented in a family-centred context (Bottema-Beutel, 2020). Autism spectrum disorders have difficulty developing adequate social communication skills, so targeted speech therapy services and support from educators and families are needed to achieve functional communication (Douglas & Gerde, 2019). Language skill stimulation in children with autism can be done with speech therapy to help them develop language skills (Yanti et al., 2015). Speech and language therapy that focuses on developing the communication and language skills of autistic children is expected to improve their communication at school and in the community (Ibrahimagic et al., 2021). Providing speech therapy services for autistic children requires optimal support from the family so that after therapy, the child can continuously apply the results of the therapy in the closest social environment, namely the family.

METHOD

Study Design

This study used a systematic and reported design by the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines (Moher et al., 2009). This protocol is registered in the International Prospective Register of Systematic Reviews (PROSPERO; CRD42020163200). The research used to search for literature that can be used to prove the importance of speech therapy for improving communication in autistic children.

Search Strategy

The systematic literature review search strategy was conducted using a database of Scopus-indexed journals in Q1-Q4. Articles searched for from 2019-2024 through the elicit.com search system. The protocol for searching for articles that match the study topic in this study uses keywords to provide higher accuracy in the study, namely "speech therapy OR language therapy AND social communication AND autism OR ASD". The study search was limited from 2019 to 2024, obtaining 320 articles, after removing duplicate studies and suitability to the study topic to 310 articles. Articles that match the study topic are ten articles. The search is limited to English, and there are no restrictions on the types of articles, such as pure research results, meta-analysis, and systematic literature review.

The screenshot shows the Elicit application interface with the following filters:

- Publication year:** A slider set to 2019.
- Journal quality:** A slider set to Q4, with options Q1, Q2, Q3, Q4, and All.
- Study Type:**
 - ☐ Review
 - ☐ Meta-Analysis
 - ☐ Systematic Review
 - ☐ RCT
 - ☐ Longitudinal
- Abstract Keywords:**
 - ☒ Abstract contains: A text input field with "Contains" and an "Add" button.
 - ☐ Abstract does not contain: A text input field with "Does not contain" and an "Add" button.

Figure 1. Elicit application display

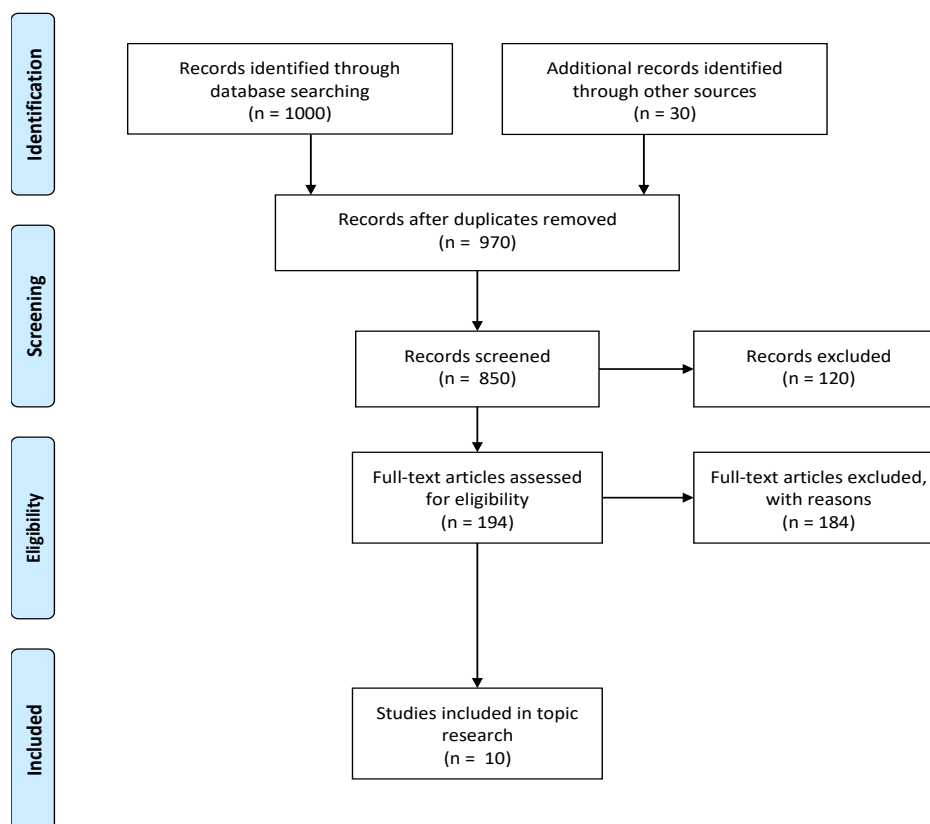


Figure 2. PRISMA Model

RESULTS

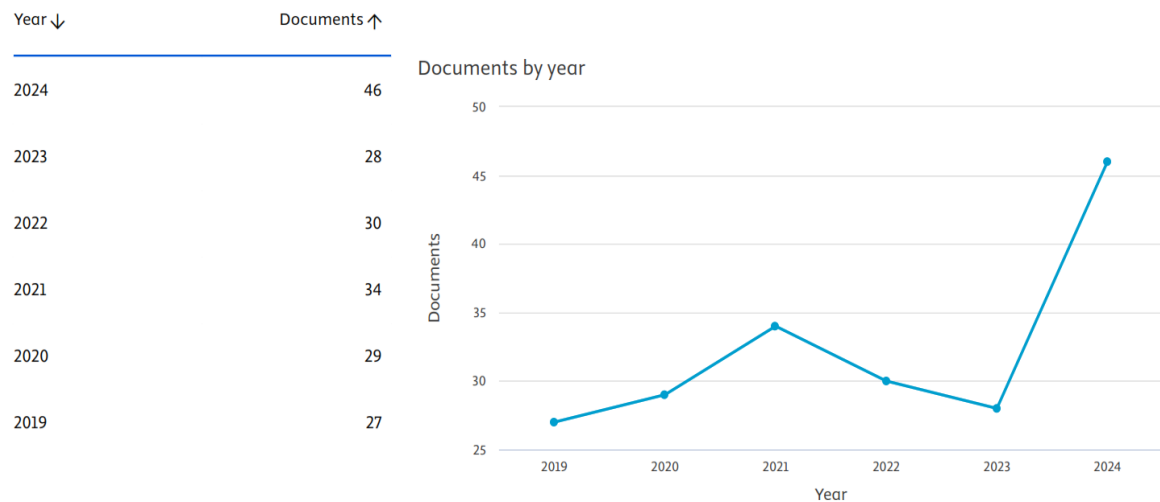
The results of searching for articles from indexed journals and proceedings from one database source, namely Scopus. Articles on the topic of study on the importance of speech therapy to improve social communication of autistic children. The analysis results with the Elicit application extracted and entered into this research topic are ten articles on the study topic. After extraction, information can be found that includes (a) author identification, (b) year of publication, and (c) benefits of speech therapy for autistic children. More complete extraction data can be seen in Table 1 below:

Table 1. Results of systematic literature review data extraction

No	Author	Year	Results
1	Al Awaji, et al., 2024	2024	Speech therapy services are important for improving communication skills in children with autism, and parental satisfaction with these services is influenced by factors such as access, support, and qualified service providers.
2	Warmbier, et al., (2023)	2023	The speech therapy application "Talk To Me" shows potential effectiveness in improving communication in children with autism spectrum disorders.
3	Błądek-Kolatorska, 2022	2022	Speech therapy is essential for developing language and communication skills in children with autism spectrum disorders.
4	Vogindroukas, et al., 2022	2022	Individuals with autism show diverse speech and language profiles, including challenges and strengths in various language subsystems, highlighting the importance of speech therapy services.
5	Luna, et al., 2021	2021	Speech therapy leads to phonological improvements and increased neuroplasticity in the auditory pathways of children with speech sound disorders.
6	Yingling & Bell, 2020	2020	Speech therapy is one of the important therapies for children with autism
7	Yoder, et al., 2020	2020	High-intensity speech therapy provides benefits for communication growth in children with autism with mild symptoms but not in children with more severe symptoms.
8	Gallagher, et al., 2019	2019	Involving multiple stakeholders, including children with developmental language disorders, is important for improving school speech and language therapy services.
9	Scharff, 2019	2019	Multilingual children with communication disorders experience slower referral to speech and language therapy than monolingual children.
10	Poppi, et al., 2019	2019	Speech and language therapy, psychotherapy and occupational therapy improved language and social skills in children with autism in the UK and Greece.

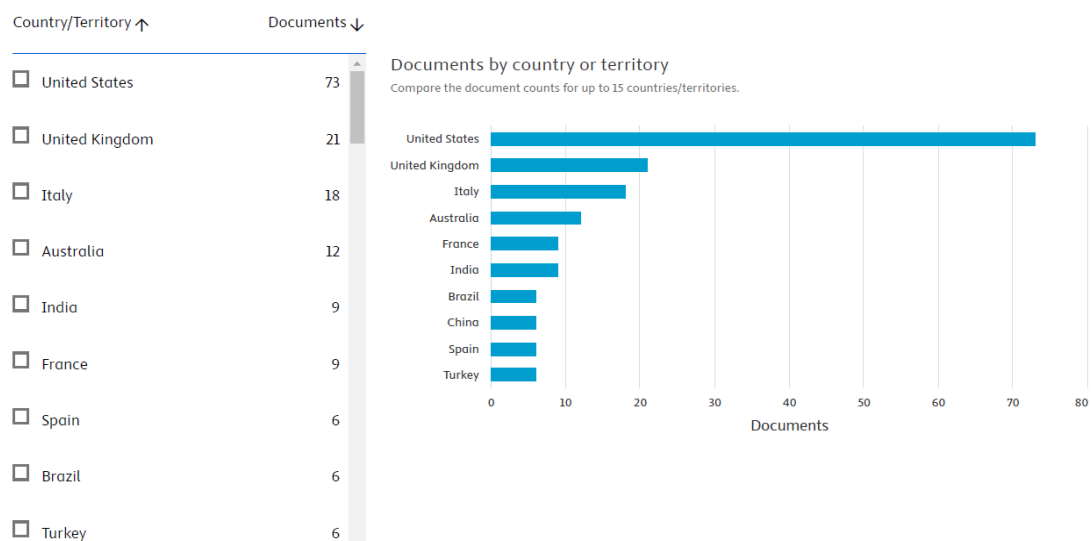
The data extraction results in the literature review study produced data that speech therapy is important for improving social communication in autistic children. Various studies explain that speech therapy carried

out at an early age has proven to be very effective in improving social communication, which has an impact on optimising children's abilities in the world of education and society. Speech therapy is equally important to improve articulation and understanding of language in autistic children whose families use bilingual languages. All studies explain that speech therapy services will be successful if family support is significant for the success of autistic children in improving their social communication. The results of the study conducted on the importance of speech therapy for social communication in autistic children in the 2019-2024 period show the following trends:



Picture 2. Speech therapy service research trend data from 2019 – 2024

The results of the analysis of article data conducted during 2019 - 2024 show the trend of research on speech therapy services to improve social communication of autistic children, most of which is research in 2024 with 46 studies. In the following analysis, the analysis used is to look at research trends by the topic per country, which is shown by the results that the United States is the country that conducts the most studies on speech therapy services to improve the social communication of autistic children. In detail, some of the studies on speech therapy for social communication of autistic children are as follows:



Picture 3. Speech therapy services research trend data by country

Based on the study above, it can be seen that speech therapy services are important for developing social communication in autistic children. The studies are still fascinating, as evidenced by the increasing research on speech therapy services for autism in 2024, where 46 studies were conducted worldwide. The largest country is the United States, with 73 studies. These results can be used as our reference for researching what forms of speech therapy services can benefit autistic children so that they can develop optimally in society and schools later.

DISCUSSION

Speech therapy for autistic children faces challenges but shows potential benefits. Parents report long wait times and financial burdens for accessing services, emphasising the need for improved support and reduced waiting periods (O'Shea et al., 2024). These findings highlight the importance of tailored, evidence-based speech therapy approaches for autistic children, considering their unique neurological profiles and individual needs (Coburn & Williams, 2020). Speech therapy services play a crucial role in improving the communication skills of children with autism spectrum disorder (ASD). Early interventions targeting social communication have shown significant positive effects, with optimal benefits observed around the age of 3.8 years (Fuller & Kaiser, 2020). Various approaches, including app-based interventions, can effectively enhance verbal communication in children with ASD, though they should complement rather than replace qualified therapists (Maseri et al., 2021). Children with ASD often exhibit delays in communication and language skills, which can impact their parents' emotions and attitudes (Ibrahimagic et al., 2021). Speech-language therapy is the most commonly utilised service among children with ASD enrolled in Medicaid waiver programs, with 65.8% of children receiving this therapy (Yingling & Bell, 2020). Factors such as urbanicity, age of diagnosis, and early intervention program enrollment are associated with therapy utilisation, highlighting the importance of early access to speech therapy services for children with ASD.

Speech therapy services play a crucial role in supporting communication for autistic children. Australian speech-language pathologists face challenges implementing evidence-based practices due to resource limitations, often relying on eclectic approaches (Sandham et al., 2022). Parents of autistic children in Ireland report long wait times and financial burdens when accessing speech and language therapy services, emphasising the need for experienced therapists and reduced waiting periods (O'Shea et al., 2024). During COVID-19 lockdowns, in-person speech therapy proved most effective for autistic children, with restrictions alleviating externalising problems but intensifying internalising issues (Sabzevari et al., 2023). Standard communication methods for autistic children include cuddling, recognising familiar faces, and indicating needs, while language skills involve following simple instructions and pronouncing single words (Ibrahimagic et al., 2021). Developing these skills through speech therapy can potentially improve parents' emotions and attitudes towards their autistic children (Ibrahimagic et al., 2021).

CONCLUSION

The results of the literature review showed that speech therapy services are one of the important factors in the development of social communication in autistic children. The studies conducted are still fascinating, as proven by the increasing research on speech therapy services for autism in 2024; 46 studies were conducted worldwide. The largest country is the United States, with 73 studies. These results can be used as our following reference, which will research what forms of speech therapy services can benefit autistic children so that they can develop optimally in society and schools later. Speech therapy services carried out early on, and parental support are the core of successful therapy for autistic children who can have the same social abilities as other normal children.

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