

Impact of Early Intervention Service through Inclusion for Children with Autism Spectrum Disorder

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Abstract

Early intervention services are a source of provision that need base service to reduce the risk factor. These children can benefit from early intervention services in the form of an inclusive system. Through inclusion, these children have established social relationships with their peers. The results of this study show that children with ASD can develop social skills and can actively speak in communication with their peers without any hesitation. This research is qualitative in nature, and thematic analysis is used for data analysis. The data was collected through unstructured interviews. The mode of interview conduction was on the google meet and zoom meeting app, and the samples for this study were parents and teachers. Inclusion through early intervention significantly affects the reconstruction of social and communication skills in children with ASD. It was found that there is a need for a certain mechanism to involve a shadow teacher which may be more beneficial to intervene students with ASD in an inclusive setting.

Key words: ASD, Early intervention, Inclusion

Introduction

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder of early childhood that is define by (DSM-V). It starts from zero to three years. According to the 5th edition of (DSM-V), published by the American Psychiatric Association, Autism Spectrum Disorder (ASD) features social deficits, especially defects in non-verbal and verbal communication and also faced problems in maintaining social cohesion and peer relationships. It also features limited, repetitive patterns of behavior, interest, and activity (Gulberg, 1991). The core features and types of autism differ in level of severity. There is a significant difference in the level of cognitive ability in the autism group, usually from people with higher or more intelligent work to people with severe or severe mental disabilities (Lord, 2018).

According to the IDEA, intervention services are compulsory under the age of 3 for children with special needs, at-risk children, children with ASD, and other disabilities (IDEA, 2013; Gleason, 2013; Russo, 2019). Many studies indicate that children with ASD can get benefits if they are early and provide them early intervention services according to the needs of the affected child (Brodzeller et al., 2018; E. A. Fuller & Kaiser, 2020). Strain (2001) argues in his study that children with ASD can get advantage from comprehensive early intervention programs and reduce at-risk factors, but early intervention plans are occasionally used with ASD children. Meta-analysis and systematic study concluded that early intervention programs have a positive impact on the development of social skills of children with ASD (Beaudoin et al., 2014; Reichow, 2012). Although the effects of early interventions are greater for some children with ASD rather than for others (Camarata, 2014; Zwaigenbaum, Bauman, Choueiri, et al., 2015). Inclusion for special needs children has become part of educational practice and also a fundamental right worldwide (WHO, 2011). DSM-5 (Diagnostic and Statistical Manual) pointed out that it is difficult for ASD children to maintain social relationships with their peers. From this perspective, many studies have shown that ASD children tend to play independent and repetitive games instead of playing with others (Andras, 2012).

Deficit in social interaction may negatively affect children's emotions and behaviors, making it difficult for them to establish interpersonal relationships in the future (Kaale et al., 2012). The social participation rate of children with ASD is generally lower. Involvement through early intervention can contribute to the development of social and communication skills in children with ASD, and their peers also contribute to the development of social and communication skills (Balaz et al., 2020; Woodgate et al., 2020). Freitag and Dinsmoyer (2015) believe that comprehensive exercise can help identify and target specific areas of intervention, aiming to improve the social inclusion of children with ASD. Participation through early intervention can also develop or make them take the initiative to improve their speaking and communication skills. Andras, 2015 believes that it can improve social skills and communication skills, with the help of effective teaching tool and achieve target skills include verbal and non-verbal communication (spontaneous communication), taking turns, sharing, and collaboration.

Several studies indicate that it cannot be assumed that older children with autism cannot be generalized to infants and young children with different cognitive developments, social relationships and communication. Infants learn from the experimental environment in their real-life environment and also interactions with their peers can develop with the help of social play that is conducted in daycare activities (Zwaigenbaum, Bauman, Choueiri, et al., 2015). Fortunately, in the past few years, more studies have evaluated interventions specifically designed for children between 2 and 3 years of age and laws have been formulated (Zwaigenbaum, Bauman, Choueiri, et al., 2015).

This paper provided a positive impact of inclusion through early intervention practices and also made parents of children with ASD about the advantages of inclusion in the early age. Findings of this research would be helpful for further researchers in identifying the role of inclusion through early intervention practices, providing awareness about the inclusion which is helpful in the development of social skills. This study has demonstrated positive perspectives on the inclusion of children with ASD through early intervention and the development of social and communication skills.

The following objectives of this study have been accomplished.

1. To know the effects of early intervention services through inclusion for the development of social skills.
2. To classify the impact of early intervention services through inclusion for taking initiative to speak with their peers.
3. To identify the impact of early intervention services through inclusion in upholding the behavior of ASD children.

The following questions of this study have been accomplished.

1. What are the effects of early intervention services through inclusion for the development of social skills?
2. What is the classification of the impact of early intervention services through inclusion for taking initiative to speak with their peers?
3. How to identify the impact of early intervention services through inclusion in upholding the behavior of ASD child?

Children with ASD have defects in three main areas: communication skills, social skills, and recurring behaviors. There are also problems with maintaining behavior or developing recurring and severe behaviors (DSM-V, 2013; Wilson et al., 2014; Lai et al., 2014). Kanner, (1943) was the first person who described that people have focused on the social behavior of children with ASD. Some children with ASD may prefer to live alone, but the latest research suggests that most children with ASD prefer relationships, friendships and social environments. Charlop, 2018 claims that, it is a mistake to assume that the lack of social skills observed in a person with ASD indicates a lack of social cohesion or a lack of interest in communication. Perhaps, many children with ASD want to make social relationships and seek out social interactions with the general population or with peers. For the development of social skills among students with ASD through inclusion, many researches support the social inclusion of children with ASD for the development of social skills among children with autism spectrum disorder with the help of peers relationships (Balaz et al., 2020; Bambara et al., 2018; Tan & Perren, 2021; Zakai-Mashiach et al., 2020).

Autism is referred to as impairment in language and communication, social interaction, and stereotypical repetitive behaviors. Two common language features that can be observed in children with autism are receptive and expressive. Many have a language at an early age and then lose it. Most parents reported that a one-year-old child used words and stopped saying words at eighteen months for unknown reasons. Many children with oral motor dysfunction. They have difficulty in moving their mouths and coordinating their tongue and lips, which causes problems in the production of sounds (Couteur & Szatmari, 2015).

Kwok (2015) reported that especially when working on the expressive language of CASD, the child can control and coordinate oral motor movements. Autism Spectrum Disorder is generally a processing disorder. Occasionally, these children have messages and information in their heads, but because of the disconnect between the brain and the mouth, they cannot produce the information and deliver messages in a meaningful way. In ASD Children, who have difficulty in imitating motor movements also have difficulty in imitating sounds. If social interactions of children with autism are observed, they have slightly or may be never interaction with their peers and society members. They prefer to be alone and engage

themselves in set intrinsic motivational behavior. They use non-verbal behaviors such as eye contact and facial expression to a limited extent in their social interactions (APA, 2013).

The relationship with peers and their age mate can develop social relationships with each other and also these social interactions have a vital role in development during adolescence (Rubin et al., 2011). The interactions of ASD children with peers and other society members are an important part of the development process and this interaction have positive affect not only success, but also school years (Babb et al., 2020; Hughes et al., 2012) The interactions with peers that are important in developing communication skills and recognizing identity (Rubin et al., 2011). Through the relationships and interaction of ASD children with peers is helpful in development of cognition, social competence and emotional relationship (Babb et al., 2020).

Couteur and Szatmari (2015) reported that children with ASD are inadequate in distributing their interests or common interests with peers. Children with ASD mostly have no interest in showing and sharing things with peers and also do not participate in games. According to (DSM-5., 2013) children with ASD face trouble in developing or maintaining relationships with their peers, siblings and also encounter difficulties to participate in group games or activities. They lack social imitation or creative play. These children appear seemingly normal, but there are strange repetitive movements that make them unique. Some children like to stack toys in a row or clap their hands repeatedly and few children involve themselves in parts of objects instead of using hand clapping (Guthrie et al., 2013).

Children with ASD have different patterns to see things and some feel with their fingers. It has been seen many children with ASD have unique movements and style observing the thing or objects. Occasionally they always enter the room from the same direction and through the door and some children with ASD prefer to have all doors closed or open, and light off and on (Evers et al., 2021; Guthrie et al., 2013). They want to perform certain activities in a certain order (for example, closing car doors in a certain order). Some children with ASD have characteristics that are easily upset by minor changes in the set environment or routine (for example, placing things in a cupboard in a different style) and they become very uneasy and troubled if routines or environments are not shadowed. This is a self-motivated behavior and they serve to satisfy themselves.

These behavior problems run the risk of developing OCD behavior if left untreated. These types of repetitive behavior make hurdles in getting learning and social participation with their peers (Christensen et al., 2018).

Early Intervention

Early intervention is the source of provision of extra services according to the needs of the at-risk children. During early intervention service, such services are provided like speech therapy, physiotherapy, psychological therapy, occupational therapy, and social work services and these services have depended on the child at risk, and services are selected accordingly (Guralnick, 2019; Little & Mount, 2018).

The core purpose of early diagnosis and screening is to provide best early intervention services for the development of social and communication skills among children with autism spectrum disorder and become a source of reducing at-risk factors (Zwaigenbaum et al., 2009). With the advance review of ASD children's special issue (Zwaigenbaum, Bauman, Choueiri, et al., 2015) and increasing evidence that ASD can be accurately diagnosed before the age of 2 years (Guthrie et al., 2013), ASD is particularly suitable for this age group. Early intervention services can be grater at that age for the development of social and cognition skills among children with ASD (Eisenhower et al., 2021). The second year of development of children with ASD are consider more important for various reasons. The first and second year of development of children with ASD are the source of brain development and at this period children with ASD show different sign (Lewis et al., 2014), but it is also a period of important neuroplasticity. It gives more potential to change the development path (Dawson, 2008).

Second, some children with ASD have been reported to revert in their 2nd year. Past studies have shown that only modest correlations among observations in serial home video as a retrospectively reported analysis of regression and behavior change (Zwaigenbaum, Bauman, Choueiri, et al., 2015) and Show that over time, acquired skills can be lost and slowly can affect communication skills and social skills (Landa et al., 2013). Nevertheless, interventions at this time can counteract the developmental outbreak that leads to the development of persistent symptoms and ultimately prevent the full manifestation of ASD-related diseases. For children 2 to 3 years old, the intervention approach needs to

be appropriate for development (E. A. Fuller & Kaiser, 2020; Stone et al., 2021).

Many studies have indicated that the development of children with autism who participate in early intervention (EI) or early treatment programs is very different. Shumway & Wetherby (2009) argues that the second year of life is a critical time to study the early development and emerging symptoms of ASD. It is hoped that EI can prevent significant symptoms. With this new information, it is important to get various early intervention services at once and find the initial position at the same time.

Inclusive education

Inclusive education is the process of addressing children's diversity by increasing attendance in public classrooms and reducing educational exclusion (UNESCO, 2007; Miles & Singal, 2010). Inclusion has many meanings, ranging from simply placing the children with special needs in a general education environment to transforming the entire educational system. Inclusive education for children with ASD is an organizational and educational practice in which children with ASD are in the same class as other children with and without disabilities. Inclusive Education (IE) is an organizational and educational practice where ASD children can get educational services in the same classroom as other non-disabled children getting educational services. Inclusive education is considered to be the highest goal of promoting the acquisition, barrier free educational services, achievement and participation of ASD children, and is also the primary educational environment for the better development of children with ASD (Van Tran et al., 2020). Legislative changes have led to increased pressure for children with ASD to receive classroom education with their normally developing peers (Chaidez et al., 2014).

The education system that meets the needs of all children, including children with disabilities, in inclusive schools is called an inclusive education system. Khan, Ahmed, and Ghazni (2012) argue that the inclusive education system refers to the responsibility to provide every child with the highest possible level of quality education in a general education classroom. Inclusive education system allows education services to be provided to children instead of children receiving education services. This education system focuses on children who are enrolled but are excluded from teaching. Those who are out of school can only learn if the

school is accessible. These are severely disabled children with special learning needs and special circumstances. If a child-friendly and barrier-free learning environment is provided to ensure that all children are included in the inclusive education system, inclusive education can be successful (Khan et al., 2017; Krämer et al., 2021).

It has been more than a decade since the promotion of inclusive education in both developed and developing countries, but there are a number of barriers (social, economic, structural, etc.) to the full participation of all children, especially children with disabilities (Khan et al., 2017). Social skills and communication skills of children with autism spectrum disorder can be improved through early intervention and inclusive education.

Benefit of Inclusive Education for Children with ASD

Through the early stage of inclusion for children with autism spectrum disorder, they can develop good communication skills and relationships with their peers. Hansen and his colleagues (2014) believe that children with ASD have more opportunities to learn, initiate social interactions, and respond to social play with their peers by adopting and providing an inclusive educational environment with help of age-mate peers. Previous researches indicated that the children with ASD have increased communication skills and the development of social interaction in group activities with the help of an inclusive environment (Runchaoren, 2014), and their non-targeted language initiation has greatly improved the baseline level, and often close to peers (B. Fuller & García Coll, 2010; E. A. Fuller & Kaiser, 2020). Kasari (2011) argues that the 20% children with autism spectrum disorder have social networks with their peers and are friendly. Children with autism spectrum disorder with high functions like Asperger syndrome have qualities to build social relationships with their peers in a general education setup. These children have good IQ (as above 70) but these high functioning children have little bit of deficit in social bonding and relationships (Hiraiwa, 2012; Kasari et al., 2011). Agemate peers can get benefits with the exposure of children with autism spectrum disorder so Dybvik (2004) strongly believes not only the children with ASD can get benefits being the part of an inclusive environment but normal children also develop relationship and exposure with ASD children. Many studies give evidence-based arguments that the inclusive environment has vital role in development of social skills (Burke, 2020;

McConkey et al., 2020) and also very cost effective for individuals but these important more fruitful if intervention services applied through peers in effectively and timely (Odom et al., 2001). The effect of early intervention services on the development of social skills was found to be moderate (Hutchins et al., 2020).

Inclusion of ASD through Early Intervention

With the help of early intervention and early diagnosis, children with autism spectrum disorder can get the advantage. According to this perspective, (Zwaigenbaum, Bauman, Stone, et al., 2015) believe that children with autism spectrum disorder can benefit from early intervention. After the early diagnostic, if early intervention services are provided timely appropriately then it is more important (for example at the age of 2 years). In this point of view, many studies indicate that social environment through early intervention for children with disabilities and more especially for children with autism spectrum disorder have a vital role and there is little consensus on where to intervene. On the other hand, (Strain, McGee, & Kohler, 2001) argue that inclusiveness is suitable for older children, children with higher functions, and Asperger syndrome but not for preschoolers who are not yet “behaviorally-ready” to benefit from an inclusive environment.

Inclusive educational services should be adopted for children with autism spectrum disorder (ASD) at the pre-school level and steadily increased (Winchell et al., 2018). (Kalambouka et al., 2007) argues that social inclusion is beneficial for disabled children (including ASD children) and their usually developing peers. Inclusion can develop understanding among normal peers and also can remove negative attitudes against persons with disabilities (UNESCO, 2011). With a richer inclusive environment, children with special needs can develop or acquire good social skills, communication skills, gross & fine motor skills through social relations with peers’ emotional skills. Also, through inclusion observational learning process can develop, and generate opportunities for children with special needs to participate in social learning activities in daily routine (Sansour & Bernhard, 2018).

Other researchers believe that preschool children with autism may not be able to provide appropriate services in an inclusive environment, or sometimes they may be ignored by their peers in society (Reupert et al., 2015; Samadi & McConkey, 2018). Programs that support this philosophy usually recommend a period of personalization and group education before

placing them in an inclusive environment to develop these necessary skills (McConachie & Diggle, 2007; Oono et al., 2013). Stress and colleagues (2001) emphasized that although the hypothesis of widespread behavioral adoption affects early intervention programs for children with autism, there is no data to support this assertion. For the two undergraduate pre-school programs Walden Kindergarten (McGee et al 2000) and LEAP (Strain & Cordisco, 1994), excellent child development was recorded, and most children (3-5 years old) benefited from it and those who left these courses had oral communication skills.

The children with autism spectrum disorder have to receive high-quality Early Intensive Behavioral Intervention (EIBI), and more and more students are entering regular classrooms. In an inclusive educational setting, the children with ASD can get important benefits but also it is more beneficial for students with normal development (Meindl et al., 2020). The inclusive educational system can be the source of developing good understanding among different individuals, improved collaboration with peers, and also increased respect for all members of society including normal children and special needs children. With the acceptance of inclusion from teachers and parents of autism spectrum disorder, the academic learning performance of children with ASD can be lower than they expected. Inclusion through early intervention has an impact on the quality of social/gaming experience between children with ASD and their usually stunted peers (Balaz et al., 2020).

Qualitative research approach was used in the conduct of this study. The nature of this study was qualitative research and thematic analysis method was used to analyze the views of parents and teachers about inclusion regarding ASD children.

Professionals and parents of ASD children was the population of study. 10 Professionals and parents of ASD selected by using purposive sampling from Lahore and Faisalabad.

Unstructured interview was used to collect the data, mostly on social and communication skills i.e. (Views about EI program before entering in regular schools, about the benefits of EI before inclusion, effect of EI on behavior of children with ASD).

Unstructured interviews were used as tools for the data collection. Researchers conducted the interview by using Google meet, Zoom meeting app, and their interview for the purpose of data collection regarding the

inclusion of children with ASD through the early intervention. All the interviews were recorded, coded and themes were identified for the purpose of data analysis. Thematic analysis is one of the most common forms of analysis in qualitative research. It confirms the examination of patterns (or "topics") in the data. Subjects are patterns recording across data sets that are important to describe phenomena and relate to specific research issues. Following themes were identified that were shown in table 1, social skills, speak initiative, communication skills, shadow teacher, social inclusion, attention span skills and behavior modification.

Table 1: Themes and sub-themes

No	Themes	Sub-themes
1	Social skills	Development of the social skills
2	Speak initiative	Can take initiative in speaking
3	Communication skills	Functional communication
4	Shadow teacher	Role of shadow teacher
5	Social inclusion	Academic activities with their age mate
6	Attention span skills	Short attention span or long attention span
7	Behavior modification	Good behavior and bad behavior

Conclusion

Utmost number of respondents were argued that inclusion through EI program before entering in regular schools is very effective for children with ASD in terms of social skills, speak initiative, communication skills, shadow teacher, social inclusion, attention span skills and behavior modification. Teachers and therapist claim that Inclusion through early intervention can develop social skills among ASD children and create friendly environment to make strong relationship with their peers. Participants also viewed that in inclusion children with ASD spend most of the time with their peers so it can also provide starter to ASD child in speaking which leads them to take initiative in conversation with their peers. According to the respondent inclusion is beneficial form the improvement of communication skills in the form of expressive and receptive language also develops and children with ASD can receive the message from their peers. Respondents reported that the role of shadow teacher in inclusion very important in form of making participation in classrooms task with extra attention. Rest of the respondents strongly claimed that inclusion through early intervention can play dramatic role in developing social and communication skills through social inclusion

environment. Respondent reported that the effect of inclusion through EI on behavior of children with ASD will help to cope the problems in regular classrooms.

Successful inclusion programs can create a certain level of community awareness, which will encourage further action in other school systems. Acknowledge that the support required for the success of these programs does not include extra time, professionalism and commitment to other resources and is perhaps a major factor in the promotion and promotion of these programs.

Finally, it is concluded that inclusion through early intervention found significantly source of development of social and communication skills among children with ASD.

Discussion

Including children with autism in mainstream kindergartens is not only a basic human rights and moral obligation (WHO, 2011), it is also an important challenge for teachers and society as a whole (Göransson et al., 2013). In this study, inclusion through early intervention uniquely focused on development of social and communication skills in children with ASD by participating in normal classroom settings with their normal age peers. This study finding indicates that the inclusion can play a vital role with the help of age-mate peers for the development of social skills among children with ASD. In this thought mostly respondent argues that peers can be helpful in developing social and communication skills among children with ASD. Rhijn, (2021) argues that in an inclusive setting, peers can play an important role in development of social skills in typically developing young preschool-aged children including ASD children.

In this study, respondents reported that if students with ASD receive advanced early intervention services that will be helpful in developing effective social and communication skills. Many studies have shown that the effects of early intervention in improving social communication among children with ASD have been significantly observed (Babb et al., 2020; E. A. Fuller & Kaiser, 2020). Enrolling children with autism in mainstream classrooms not only has significant benefits for self-learners, but some of the benefits include a better understanding of individual differences, improved collaboration skills, and greater respect for all members of the community. Zakai-Mashiach (2020) reported in their study that the academic performance, social, and communication skills can be increased with the help of an inclusive

educational system after the acceptance from parents and teachers of autism spectrum disorder.

Recommendations

There are several recommendations of this study that must be acknowledged. In inclusion practices a standardized effective EI program of children with ASD before entering in regular schools is required. Parents and teachers should be engaged for effective inclusion through EI. There is a need for a certain mechanism to involve a shadow teacher which may be more beneficial to intervene students with ASD in an inclusive setting. Parents should be included throughout the EI program and may be more beneficial for children with autism spectrum disorder. Furthermore, research should be conducted on the effects of social inclusion through early intervention.

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