

Social and Communication Skill Deficits in Children with Autism Spectrum Disorder: A Qualitative Study

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ABSTRACT

There are notable social interaction deficiencies in both verbal and non-verbal communication of children with autism spectrum disorder (ASD), better understanding of major deficits is crucial in planning management. A qualitative study was done on 10 children within age range of 6-15 years with ASD through focused group interview/discussion with parents and teachers. Sample was taken from Deepshikha Institute for Child Development & Mental Health, Namkum, Ranchi, Jharkhand. A semi-structured Proforma, Indian Scale for Assessment of Autism (ISAA), Stanford Binet Intelligence Scale, Vineland Social Maturity Scale, and semi-structured interview schedule for parents and teachers were used for data collection. Thematic analysis was done on the responses provided in focused group interview/discussion. In results two major themes emerged i.e., social and communication skills and emotions with sub-themes of verbal communication, non-verbal communication, identifying emotion and managing emotions. Planning for the management of ASD should emphasis on significant deficiencies in social communication skills as well as emotions, which are a component of social competence.

Keyword: Autism spectrum disorder, Social and communication skills, Emotion, Joint attention, Facial expression, Social competence.

1. INTRODUCTION

The basic characteristics of autism spectrum disorder (ASD), a group of neurodevelopmental disorders are typically apparent by early childhood. It is one of the most crippling developmental disabilities and a chronic, lifelong ailment (Matson & Cervantes, 2014). Along with excesses in stereotyped and repetitive behaviours, the disorder is characterised by a number of fundamental characteristics, such as deficiencies in social and communication skills (Fodstad et al., 2009). The most distinctive feature of ASD is a marked sociability deficit, as most children with disorder exhibit little interest in socializing, not even with members of their own family. The majority of children experience delayed word acquisition, prior to receiving treatment, they may exhibit mutism or a mild verbal deficiency. They also struggle to use nonverbal cues like signs and gestures to communicate. Some of these children often have few meaningful speeches of their own, but also frequently repeat people's words or phrases without understanding them. ASD children display a wide range of behaviours, interests and hobbies, but stereotyped routines and uninspired, repetitive and unsocial toy-play are prevalent. Some children express intense aggressiveness, disruptive and self-injurious behaviours that place great stress on their families and become a challenge for professionals. When assessed with intelligence tests and adaptive functioning scales most of the children with ASD are found to have intellectual disability, although a considerable distribution is observed across the domains of cognitive development (Newsom & Hovanitz, 2006).

Social impairment being a distinguishing feature of many neurodevelopmental disorders also affects individuals with ASD at all levels of cognitive and verbal functioning (Carter et al., 2005). Thus, the

hallmark symptom of autism is impairment in the development of reciprocal social interaction skills (American psychiatric Association, 2013). Social difficulties are the primary reason because of which many adults with autism face difficulty in school, social environment and occupational situations. They have limited interest in playing or accompanying agemates as well as pretend play as an essential feature of childhood development. Children in school have difficulty reciprocating social interaction. They often have limited or awkward body gestures, poor manners and/or say statements that are honest or inappropriate to others which should have been otherwise kept private. Inadequate social skills might also affect one's ability to initiate, maintain, reciprocate, and terminate conversations with peers or adults. Some may find it difficult to break away from their routine; this is known as regression or a tendency towards sameness. They consequently find it difficult to communicate with new people or situations, and they might require more time and support to adjust to new or unfamiliar experiences. Hence, they struggle with educational tasks (Grover, 2015).

This is a concerning reality, particularly considering that the social impairments could lead to the development of more detrimental outcomes, like social failure, rejection from peers, poor academic performance, anxiety, depression, substance abuse, and other forms of psychopathology (Bellini, 2006). Most importantly, a lack of social skills inhibits one's ability to build an adequate or healthy social relationship, which often leads to social withdrawal and social isolation. For successful social, emotional, and cognitive development, social skills are essential. The disorder's core diagnostic characteristics are not universal, and social skills deficiencies can be diverse (Holloway et al., 2014).

The association of communication deficits in people with autism are well known (Kanner, 1968; Prizant & Duchan, 1981). These include the inability to pronounce words, pronominal reversals, speaking, echolalia or repetition of words or phrases heard previously, issues with social interaction (such as appearing inattentive or averting one's gaze), and unusual responsiveness to external stimuli. Language and communication are known to be a very crucial components of social interaction. Autism is characterised by triad of symptoms i.e., social skills deficit, communication skills deficit and repetitive or stereotyped behaviour (Grover, 2015). Thus, to know the social skill deficits it is also necessary to discuss about the communication skill which is a pillar for social interaction.

As compared to parents of children without disability, those with other physical or learning disabilities or those with other development disorders (Hastings & Johnson, 2001), parents of children with ASD report higher levels of stress and anxiety (Sander & Morgan, 1997). Having a child with ASD has a wide range of effects on parents and families, much like the disorder itself. The lack of emotional responsiveness in a child with autism may lead to increased parental stress, which may consequently decrease empathy between mother and child. Previous researches on families having children with autism indicates that parental stress is linked with the behavioural, social and cognitive aspects of the disorder. It is true that with the higher severity of symptoms in child with ASD, the degree of parental stress will be more (Sander & Morgan, 1997). Additionally, the family will be more socially isolated. The more negative traits the child possesses, and more the stigmatisation feelings will be present (Gallagher & Beckman, 1983). Gray found that majority of parents with children with autism have experienced stigma in public settings, such as supermarket or shopping mall. Furthermore, parents of younger and/or more severely impaired children experienced greater stigma (Gray, 2003). Thus, children with ASDs have proved to be challenging for parents and professionals and is also clinically and theoretically challenging which needs a considerable attention of professionals, researchers and practitioners working in this field.

Autistic Spectrum Disorder is heterogeneous disorder. It is a chronic and lifelong condition and among the most debilitating of the developmental disabilities. The hallmark feature of ASD is social skill impairment. Thus, an intervention programme which makes children as well as parents empowered would result in better outcome for the children in area of social skills. Efforts to develop parent assisted module, in the

context of skill training are understudied and greatly needed especially in the Indian population. Additionally, little research has been done in India focusing on the development and improvement of social skills in the children having autism.

2. RESEARCH METHODOLOGY

The current study aimed to investigate communication and social skills deficiencies in the children having autism spectrum disorder. It was a qualitative study conducted at Ranchi Institute of Neuropsychiatry and Allied Sciences (RINPAS), Kanke, Ranchi, Jharkhand.

2.1 SAMPLE

Purposive sampling technique was used to select 10 children with autism from Deepshikha Institute for Child Development & Mental Health, Namkum, Ranchi, Jharkhand, who met the inclusion and exclusion criteria. Inclusion criteria for children included diagnosis of autism spectrum disorder according to DSM-5, age range between 6-15 years, children of either sex, children with IQ>35 (above moderate level), SQ>36 (above moderate level) & having mild to moderate level of Autism. Children with psychotic symptoms, having any physical illness, having vision or hearing impairment and having locomotor impairment were excluded from the study. 10 Parents and 10 Teachers of these children were included for focus group discussion and/or interview. Where either of the parents of the child with autism were included, teachers having experience in dealing with child with autism for at least 2 years were included. Exclusion criteria for both parent and teachers included individual with history of psychiatric illness or physical illness, substance dependence, inability to comprehend the study instruction or unwillingness to provide written informed consent for participation in the study.

2.2 ASSESSMENT TOOLS

Children went through a screening before being included in the study. **A semi-structured, self-prepared Proforma** was used to evaluate the socio-demographic details (such as age, sex, education, marital status, religion, occupation and socio-economic status), and clinical information of the child (i.e., range of IQ and SQ, range of autism severity comorbidity).

To determine the severity of autism, **Indian Scale for Assessment of Autism (ISAA)** was used, which was developed by the National Institute for Mentally Handicapped (NIMH) in 2009 (ISAA, 2009). The 40-items scale of ISAA is classified into six domains: Sensory Aspects and Cognitive Component, Emotional Responsiveness, Speech-Language and Communication; Behaviour Patterns, Social Relationship and Reciprocity.

Stanford Binet Intelligence Scale was used to examine the intelligence quotient of the children. In India its Hindi version was developed by S. K. Kulshrestha. The test items consist of words, objects, and pictures, and the participants' responses can be expressed by speaking, writing, drawing, and calculation (Kumar et al., 2009).

Vineland Social Maturity Scale was used to evaluate children's social adaptive functioning. In 1992 Bharat Raj expanded and altered the VSMS for the Indian population. It provides social age (SA) and social quotient (SQ) assessment and has a high co-relation (0.80) with intelligence. It is designed to measure social maturation in 8 social areas, namely, Communication skills, General self-help ability, Locomotion skills, Occupation skills, Self-direction, Self-help eating, Self-help dressing and Socialization skills (Raj, 1992).

A semi-structured interview schedule was developed and used by the researcher separately for parents and teachers of children with ASD. These schedules included open ended questions designed to encourage discussion about significant social and communication skills deficits observed both at home and in school settings.

2.3 PROCEDURE

After taking permission, children from Deepshikha Institute for Child Development & Mental Health, Namkum, Ranchi, Jharkhand, were screened and 10 children were selected on the basis of inclusion and exclusion criteria. Informed consent was then obtained from parents and teachers of the selected children. The objectives of the study were clearly explained to them beforehand. Thereafter semi-structured interview schedule focusing on socio-communication needs of children with ASD, was administered in order to gather maximum inputs from parents and teachers. Descriptive analysis was done through SPSS-21 version (Statistical Package for Social Sciences) for describing the categorical variables and clinical profile of children. Thematic analysis of the narratives of parents and teachers collected through interview was done to extract the themes and sub-themes.

2.4 QUALITATIVE ANALYSIS

For the qualitative data, thematic analysis was done. After focused group discussion or interview from the parents and teachers, all the recorded interviews were analysed carefully to generate coding of information to achieve greater accuracy in generating relevant common themes related to the child's need. A framework of six phases theoretical thematic analysis was adopted with deductive analysis (Braun & Clarke, 2006). The interview transcripts were reviewed several times, searching for "recurring regularities". The quotes and phrases were highlighted from the interviews that were significant to the present study. Initial codes related to the research questions were generated, and were analysed for themes. Next the themes and sub-themes were generated after which participants were again asked to comment on the summarised themes emerged from there focused group discussion or interview. Participants agreed that the themes accurately described their experiences and neither of them suggested any changes in the themes. A thematic map was then created related to the research questions and presenting the overall summary of thematic analysis.

2.5 STATISTICAL ANALYSIS

The raw data was analysed statistically with aid of the computer program SPSS-21 version (Statistical Package for Social Sciences). Descriptive statistics was used for describing the categorical variables and to describe the practicality and acceptability of the developed module.

3.RESULTS & DISCUSSION

Table 1: socio-demographic and clinical characteristics of children with autism spectrum disorder

Variables		Child with autism Sample (N%)	
Age	6-8 years	2	20%
	9-12 years	5	50%
	13-15 years	3	30%
Sex	Male	6	60%
	Female	4	40%
IQ range	35-49 (Moderate)	3	30%
	50-69 (mild)	6	60%
	70-84 (borderline)	1	10%
SQ Range	36-54 (Moderate)	2	20%
	55-69 (Mild)	6	60%
	70-84 (Borderline)	2	20%
Severity of Autism	70-106 (Mild)	2	20%
	107-153 (Moderate)	8	80%

Table 1 shows the clinical variables of children. Descriptive statistics was used to compare the frequencies of different categorical clinical variables. The participants were diagnosed with autism spectrum disorder according to DSM-5. Their age range was 6-15 years in which majority of them were between the ages of 9-12 years. There were more male children than female children among the participants. Both the intellectual and social adaptive functioning of the majority of children were in mild level. They were having mild to moderate level of Autism.

Figure1: Thematic map of identified themes through the thematic analysis

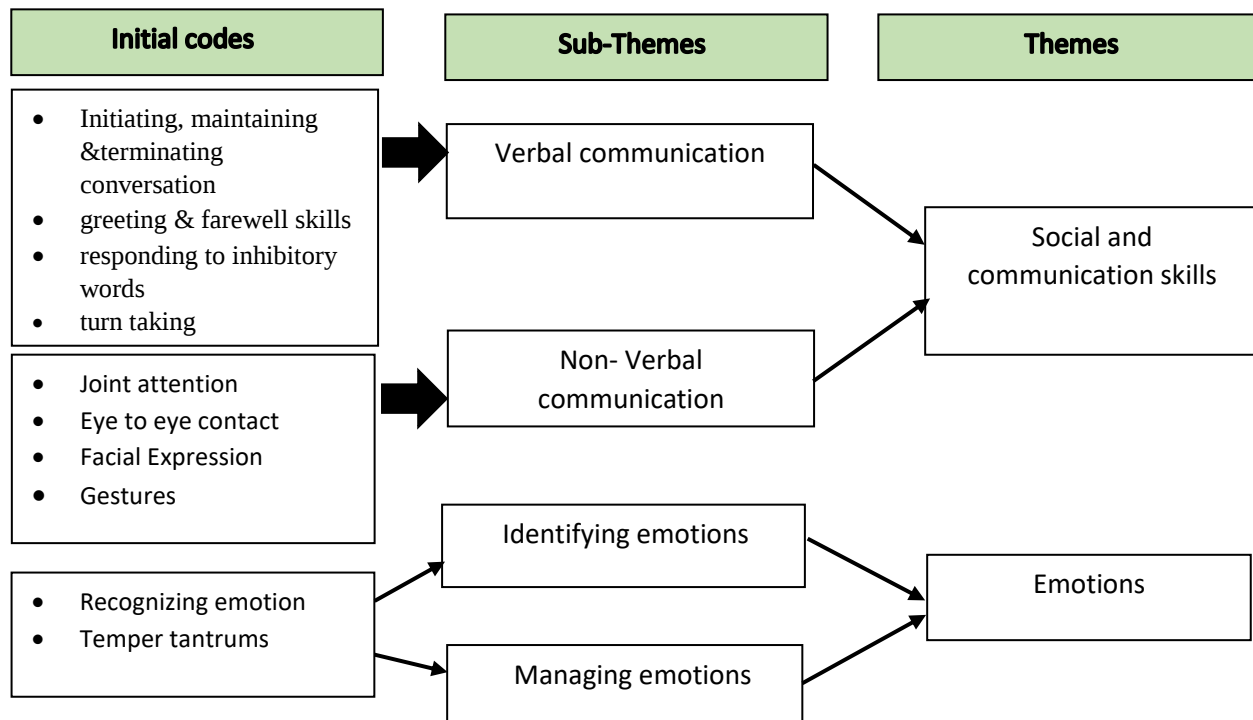


Figure 1 is a thematic map that shows the identified themes through thematic analysis from focus group interview with parents and teachers of children with autism. This map presents a summary of the themes that emerged from the initial codes and subthemes. The initial codes were derived from the transcription of a focus group interview that explored key social and communication skill deficits in children with ASD, both at home and at school. From the analysis, four subthemes emerged: verbal communication, non-verbal communication, identifying emotions, and managing emotions. Social and communication skill and emotion were the primary theme that could include the four sub themes and portray the social and communication deficits of children with ASD.

Table 2: Frequencies of emerged codes and sub themes from the transcription

Themes	Sub-themes	Initial codes	Parents (N%)	Quotes (Parents)	Teachers (N%)	Quotes (Teachers)
Social and communication skills	Verbal communication skills	Initiating, maintaining & terminating conversation	10(100)	"It is even very difficult for my child to initiate any conversation then leave about maintaining or terminating it"	10(100)	"We often have to initiate communication with the child ourselves. The child has significant difficulty initiating conversations, which prevents them from progressing to other stages of communication"
		Greeting & farewell skills	10(100)	"She does not independently say greetings such as "Good morning" or "bye," despite	7(70)	"Very few of these children greet us or other classmates independently, most of them require prompting from us to do so"

				attending school regularly.”		
		Responding to inhibitory words	9(90)	“Yes, my child is really very poor in responding to the words such as “no”, wait”. Even at 10 years of age, I continue to struggle with this issue”	8(80)	“The children often have difficulty responding appropriately to words such as “no,” primarily due to temper tantrums and hyperactivity.”
		Turn taking	10(100)	“She often remains self-occupied and is unable to wait for her turn while playing with her sibling, which eventually leads her to play alone”.	09(90)	“Yes, it is difficult for them to wait for their turn, and it is also challenging for us to involve them in social play. But we anyhow manage them by prompting and role play”.
	Non-Verbal communication	Joint attention	8(80)	“When I point towards something, usually he doesn’t pay attention to it.”	7(70)	“It is very challenging to engage most these children in activities that requires shared attention.”
		Eye to eye contact	09(90)	“One of the major concerns regarding my child is that he still has difficulty maintaining eye contact.”	08(80)	“Most of them have difficulty maintaining eye contact even after being given constant prompts.”
		Facial Expression	10(100)	“She consistently has difficulty understanding facial expressions, which often leads to inadequate responses.”	10(100)	“They often seem confused when we express emotions through facial expression.”
		Gestures	07(70)	“For my child we frequently have to use verbal explanations along with gesture to make him understand it.”	08(80)	“Despite repeated practice, they continue to struggle with understanding gestures, including simple hand movements, and also have difficulty reproducing them.”
	Emotions	Identifying emotions	Recognizing emotion	08(80)	09(90)	“Yes, they do have difficulty in recognizing emotions due to which their responses are often inappropriate.”
		Managing emotions	Temper tantrums	10(100)	10(100)	“Most of them have difficulty regulating emotions and may suddenly display intense outbursts, and managing them during tantrum episodes is often challenging for many of us.”

Table 2 shows the frequencies of emerged codes and sub themes from the transcription of focused group interview. The table shows the summarised frequency of initial codes and subthemes that were discussed by the parents and teachers during the focus group interview. Through the analysis it was found that most of the parents discussed about the lack of **verbal communication skill**. All the parents (10) and teachers (10) expressed their concern about the child having lack of understanding about initiating, maintaining and terminating conversation at home as well as at school. Also, most parents (10) and teachers (7) discussed about the children lacking in greeting and farewell skills towards people in spite of being regular in school environment they need promptings for these skills. Most of them i.e., 9 parents and 8 teachers revealed that

the children have difficulty in responding adequately towards inhibitory words. Additionally, both parents (10) and teachers (9) expressed concerns about the children's difficulty in understanding turn taking, whether with siblings during play at home or with classmates in other social situations that require turn taking. Most of them also discussed about the absence of **non-verbal communication** in their children which cause difficulty in communicating or comprehend communication. Both parents (8) and teachers (7) revealed about the children with ASD having problem in joint attention, they also reported about the difficulty in maintaining eye to eye contact in their children (parents =9, teachers =8). All the parents (10) as well as teachers (10) reported about the lack of recognising facial expression which again contributes to their poor communication skills. Most of the parents (7) and teachers (8) discussed their concern towards the lack of comprehending gestures in the children with ASD. All of these subthemes contributed to the development of the overarching theme of Social and Communication Skills. Furthermore, both parents and teachers emphasised that emotional understanding and regulation is a critical psychological need for children with ASD. They noted that lack of emotional competence often results in difficulties with social competence, highlighting the importance of addressing this area through intervention. Thus, this theme consisted sub-themes of **identifying emotions** and **managing emotions**. There were (8) parents and (9) teachers who expressed their concern that the children difficulty in recognizing emotions on various social situations. All parents (10) as well teachers (10) also showed concern about the temper tantrums of the children which needs serious consideration with respect to its management.

3.1 DISCUSSION

This study was conducted to explore the major deficits in social and communication skills of children with ASD. The findings of the study revealed notable deficits in verbal communication among children with ASD. Specifically, these children showed difficulties in initiating, sustaining, and appropriately terminating conversations with others. Similarly, Jones and Schwartz found that children with autism not only initiated interactions less frequently than their typically developing peers but also often ignored attempts by others to engage with them (Jones & Schwartz, 2009). Findings also suggested that children with autism lack in greeting and farewell skills even after frequent promptings provided by both parents and teachers. Similar findings were found in the study where authors identified key elements of conversation in autism including openings and greetings, maintaining a topic, topic shift, turn taking, repairing breakdowns and checking for understanding and interpretation (Sng et al.,2018). The present study also found that children with autism struggle to respond appropriately to inhibitory words, which contributes to delayed reactions and is often linked to restricted and repetitive behaviours. This finding aligns with the results of Schmitt who reported that children with ASD have difficulty responding to inhibitory words and performing appropriate actions in response (Schmitt et al.,2018). This challenge is associated with more pronounced repetitive behaviours. The results of the present study indicated that children with ASD struggle with turn-taking. This is supported by findings from a study where results showed children with more pronounced ASD characteristics took fewer conversational turns, responded less often, spoke less frequently, used shorter phrases, and exhibited longer pauses during interactions (Bone et al.,2016).

The study revealed significant non-verbal communication deficits in children with ASD, particularly in the area of joint attention. The results showed that these children struggle to engage in joints attention effectively. Similarly, Elsabbagh and Johnson concluded that joint attention is a key area difficulty for young children with autism, who exhibit substantial impairments across various joint attention tasks (Elsabbagh & Johnson,2007). It was also found in the result that children with autism have difficulty in eye to eye contact, this finding was supported by study where authors discussed about eye contact difficulties that underlie social cognitive deficits in ASD, and can create significant social barriers (Trevisanet al., 2017). Lack of recognising facial expression was also found in the present study which was

corroborative with the findings of the study where result showed that adolescent with ASD have severe expression recognition deficits (Loth et al., 2018). The findings of the present study indicate that children with ASD have difficulty understanding gestures. Similar results were reported by Fourie et al., who found that individuals with ASD show abnormalities in both the interpretation and use of gestures. These difficulties may reflect underlying disruptions in the typical development of social and communication skills (Fourie et al., 2020).

The present study also found lack of emotional competence in children with ASD in terms of difficulty recognising emotions. As Trevisan & Birmingham indicated that one challenge with marked difficulties in social communication in ASD, is the impaired interpretation of nonverbal communicative functions such as emotion. Their findings supported that recognising emotional states of others can be a perilous element of adaptive social functioning which is important for effective communication and interaction with others (Trevisan & Birmingham, 2016). Another study also reported that children with ASD experience difficulties in recognising emotions (Kuusikko et al., 2009). Similarly, other study found that emotional recognition development in children with autism is delayed, suggesting an age-dependent relationship between emotion recognition abilities and the severity of social challenges (Hoyland et al., 2017). The present study also found that children with ASD face challenges not only in identifying emotions but also in managing them, often displaying emotional dysregulation through temper tantrums. This is consistent with findings of a study where authors reported that tantrum behaviours are commonly observed in individuals with ASD (Tureck et al., 2013).

The present study was conducted on a small sample, which limits the generalizability of its findings. As a result, it was not possible to examine the relationship between restricted and repetitive patterns of behaviour and deficits in social and communication skills, along with other related factors. Therefore, future research should aim to include a larger sample size to explore these associations more thoroughly, which could help inform more effective strategies for managing social and communication skill deficits in children with ASD.

4. CONCLUSION

Social and communication deficits in children with ASD place them at a significant disadvantage across various areas of development, socialization, and overall social well-being. These challenges can hinder their ability to form relationships, engage in meaningful interactions, and participate fully in everyday social environments such as home, school, and community settings. For both parents and teachers, addressing these deficits presents a considerable challenge. Difficulties in communication—both in expressing themselves and in understanding others—make it harder for children with ASD to engage effectively with those around them. As a result, caregivers and educators often struggle to interact with the child, provide appropriate support, and facilitate their social integration. Given that emotional understanding and regulation are integral components of social competence, these areas should also be prioritized. Emotional difficulties—such as identifying, expressing, and managing emotions—often go hand-in-hand with communication challenges and can further impede social development. Therefore, when planning interventions or management strategies for children with ASD, it is essential to place strong emphasis not only on improving verbal and non-verbal communication skills but also on enhancing emotional competence. A comprehensive approach that addresses this core areas will be more effective in supporting the child's social development and overall quality of life.

5. ACKNOWLEDGEMENT

The authors would like to appreciate Deepshikha Institute for Child Development & Mental Health, Ranchi and all the participants for their significant contribution in the present study.

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