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Pragmatic Profiling in Children with Verbal Autism

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Abstract

Pragmatic language involves the appropriate use of language in social contexts, encompassing skills such as eye contact, turn-taking, gesture use, topic management, joint attention, and conversational repair. This study aimed to assess and compare pragmatic skills in Malayalam-speaking children with verbal autism and typically children. Fifty children aged 5 to 13 years. 30 with verbal autism and 20 typical children were assessed using structured tasks including conversation, picture description, and question-answering. Findings revealed that children with verbal autism exhibited significant deficits across most pragmatic domains, despite adequate vocabulary and grammar. These results align with existing literature and underscore the heterogeneity of pragmatic impairments in autism. The study highlights the need for

individualized, context-based interventions that go beyond language structure to enhance functional social communication.

Keywords: Pragmatic language, Verbal autism, autism spectrum disorder (ASD), Malayalam-speaking children, social communication

CHAPTER 1

Introduction

Language is the ability to produce and comprehend both spoken and written words. Complex language is one of the defining factors that make us human. The five main component of language are phonology, morphology, syntax, semantics, and pragmatics. “Language is a complex system of arbitrary symbols which is used for human communication. (American Speech and Hearing Association, ASHA, 1982).

“Communication- the human connection is the key to personal and career success”. The Latin word "communis" means "common" or "shared." It conveys the idea of something that is held in common among people, which aligns with the concept of communication as a means of sharing information, ideas and feelings between individuals. The root emphasizes the collaborative and interconnected nature of human interaction. All living organism communicate in one way or the other. However, it is the humans who have the privilege of using arbitrary symbols. Communication is defined as the process of transmitting information and common understanding from one person to another. The means of communication in humans is language.

Pragmatics is "the study of the relations between language and context that are basic to an account of language understanding" (Levinson, 1983). The term pragmatics has been introduced into the field of speech-language by Bates (1992) a psychologist at the university of California. Bates (1976) defined pragmatics as the rule governing the use of language in context.

Autism is a neurodevelopmental disorder affecting physical, social and language skills, with an onset of signs and symptoms typically before age three. The term autism from the Greek “autos” meaning “self” was coined by Swiss psychiatrist Bleuler (1911).

Autism Spectrum Disorder (ASD) is marked by persistent challenges in social communication and interaction, as well as restricted, repetitive patterns of behavior, interests, or activities. According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (American Psychiatric Association, 2013), these symptoms manifest in early developmental stages and significantly impair social, academic, and occupational functioning. Core deficits include limitations in social-emotional reciprocity, nonverbal communicative behaviors and difficulties in developing and maintaining relationships. The American Autism Association (2021) similarly describes autism as a developmental condition that affects how individuals communicate, interact socially and process sensory information. Autism is considered a spectrum disorder reflecting the wide variability in symptom presentation and severity among individuals.

Children with ASD, particularly those who are verbally communicative, commonly exhibit marked deficits in pragmatic language abilities. These deficits may persist across the lifespan and varies in severity depending on individuals cognitive and linguistic profiles. While existing literature has consistently demonstrated impaired pragmatic functioning in children with ASD, there is a paucity of research specifically addressing these skills in children with verbal autism within the Malayalam-speaking population.

The present study aims to investigate the pragmatic language abilities of children with verbal autism and to compare these with those of typical children. By doing so, the present study fill the significant gap in the literature and contribute to a more nuanced understanding of pragmatic language development in children with verbal autism in the Malayalam linguistic and cultural context.

CHAPTER 2

Review of Literature

Human being communicate to share ideas, feelings, desires, emotions and for sheer pleasure. Communication is mainly an active and intentional two way process of exchange of message which is essential for every living being. (Rao, 1992). But the code that is most used by human being to convey this information is called language.

Language is a symbolic, rule-governed system used by individuals to communicate ideas, emotions and intentions. Language is understood as having three major components: form**,** content and use (Owens, 2020).

Form refers to the structural aspects of language including phonology, morphology and syntax which governs the sound system, word structure and sentence construction.

Content is concerned with semantics or the meaning of words and sentences and involves vocabulary acquisition and the ability to express and comprehend concepts.

Use or pragmatics is focused on the social aspects of language such as understanding conversational rules, taking turns, adjusting language based on context and interpreting non-verbal cues. (Owens, 2020).

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition characterized by impairments in social interaction and communication, alongside restricted and repetitive behaviors (American Psychiatric Association [APA], 2013). Even among children with intact structural language (i.e., those who are verbal), pragmatic impairments remain a core diagnostic feature and significantly affect daily functioning (Paul, Orlovski, Marcinko, & Volkmar, 2009)**.**

Pragmatics refers to the social use of language—the rules that govern how individuals use language in context, including turn-taking, topic maintenance, conversational repair, and understanding implied meanings such as sarcasm or figurative speech (Levinson, 1983). Unlike syntax or phonology, which involves the structure of language, pragmatics relies heavily on social cognition, including Theory of Mind (ToM), joint attention, and the ability to infer others' intentions (Matthews, Biney, & Abbot-Smith, 2018)

Primary cognitive explanations for these pragmatic deficits are the ToM hypothesis, which refers to the ability to understand and attribute mental states to one and others. (Baron-Cohen, Leslie, & Frith, 1985) found that children with autism often fail ToM tasks, suggesting a limited ability to appreciate others' perspectives. Happe (1995) supported this connection, finding a strong relationship between ToM deficits and impaired pragmatic elements such as narrative coherence and conversational appropriateness in verbal children with autism.

Particularly significant area of impairment in individuals with ASD involves **pragmatic language skills** the social use of language. Pragmatics includes the ability to use language for different communicative purposes (e.g., requesting, greeting), follow conversational rules (e.g., turn-taking, topic maintenance), and interpret nonliteral language (e.g., idioms, metaphors, sarcasm). Research has consistently shown that children with verbal autism exhibit notable deficits in these areas (Tager-Flusberg, 2000; Adams, Baxendale, Lloyd, & Aldred, 2005). These pragmatic difficulties often hinder their ability to initiate and sustain conversations, interpret social cues, and engage effectively in peer interactions. As a result, pragmatic impairments are considered a core component of the social-communication challenges observed in autism. Understanding these difficulties is essential for developing targeted assessment and intervention strategies that support communicative competence and social inclusion in children with ASD.

Pragmatic language, which encompasses the appropriate use of language in social contexts, is a critical domain often impaired in children with verbal autism. Despite having functional verbal abilities, these children frequently exhibit challenges in using language for social interaction, such as taking turns in conversation, maintaining topics, and understanding nonliteral language. Tager-Flusberg (2000) highlighted that while many children with verbal autism develop vocabulary and syntax within age-appropriate norms, they continue to struggle significantly with conversational skills. Volden and Lord (1991) further demonstrated that children with high-functioning autism have marked difficulties in turn-taking and topic maintenance compared to their typical children.

Naturalistic studies have provided further insight into the real-world implications of these pragmatic difficulties. (Paul, Orlovski, Marcinko, & Volkmar, 2009) conducted a longitudinal study that documented persistent deficits in topic initiation, contingent responses, and

responsiveness to listener cues in children with ASD, even as their structural language improved. Similarly, (Adams, Green, Gilchrist & Cox, 2002) compared children with ASD, specific language impairment (SLI), and typically developing controls, finding that children with autism demonstrated unique pragmatic errors, particularly in initiating and sustaining interaction, which were not accounted for by general language delays.

- **Volden, Dowding and Painter (2009**) found that children with high-functioning autism showed significant deficits in conversational reciprocity and the use of context-appropriate language compared to typically developing peers.
- **Adams, Biney and Abbot-Smith (2012)** highlighted that even when grammatical skills are intact, children with ASD demonstrate reduced success in tasks involving inference, emotion interpretation, and narrative coherence.
- **Lam and Yeung (2012)** reported that children with verbal autism exhibit atypical use of communicative gestures, poor understanding of indirect requests, and limited ability to repair communication breakdowns.

Quantitative research using standardized measures such as the Children's Communication Checklist – 2 (CCC-2) has reinforced these findings. Bishop and Norbury (2002) observed that children with verbal autism scored significantly lower on pragmatic subscales related to inappropriate initiation, nonverbal communication, and the use of context, compared to children with typical development and those with language impairments. Geurts and Embrechts (2008), using a Dutch adaptation of the CCC-2, confirmed the tool's sensitivity in distinguishing pragmatic impairments in ASD from other developmental conditions such as ADHD and SLI.

Intervention studies have shown that although pragmatic deficits are prominent, they can be responsive to targeted strategies. (Kasari, Freeman & Paparella, 2006) reported that peer-mediated interventions improved joint attention and social initiations in children with autism, indicating that socially embedded practices can enhance pragmatic functioning. (Fujiki, Brinton & Clarke, 2002) also demonstrated gains in pragmatic flexibility and narrative organization following interventions focused on emotional understanding and perspective-taking.

Western Studies

Lindsay (2012) studied pragmatics intervention for individuals with Intellectual disabilities transitioning to employment. The result of the study concluded that for individuals with intellectual disabilities who present with pragmatic deficits, obtaining and sustaining employment can be challenging and pragmatic intervention is warranted. As speech-language pathology continues to grow as a profession and adapt as a discipline, it is hoped that speech-language pathologists become more involved in this type of assessment, intervention and support. The role of the speech pathologist working with these individuals is to help them communicate effectively and, ultimately, improve their quality of life. For individuals with intellectual disabilities, that often means getting and keeping a job.

Diken (2014) studied on pragmatic language skills of children with developmental disabilities in Turkey language. The result of the correlation analysis revealed a significant negative correlation between Autism Index scores and pragmatic language skills Index scores. The result also revealed significant differences in Turkish version of the pragmatic language skills inventory (TV-PLSI) scores between children Autism Spectrum disorder and children with intellectual disability (ID).children with ID had a higher pragmatic language skills compared to children with autism.

Rodas and Blacher (2017) studied structural and pragmatic language in children autism spectrum disorder (ASD). Participants were 159 young children (4-7 years old) with ASD and their mothers. Result suggested that pragmatic language was inversely related to child anxiety and co-occurring externalizing behaviors. These findings suggest that children with ASD may be heightened risk for anxiety and externalizing disorders due to their pragmatic language deficits

Loukusa, Makinen, Gauffin, Ebeling and Leinonen (2018) investigated on assessed social-pragmatic inferencing skills in children with autism spectrum disorder and the finding demonstrates that social-pragmatic inferencing challenges in ASD are variable and worsen as mind-reading expectations rise.

Roqueta and Katsos (2020) studied distinction between linguistic and social pragmatics helps the precise characterization of pragmatic challenges in children with autism spectrum disorders and developmental language disorder. The study's conclusion was that social pragmatics tasks are exceptionally difficult for children with autism spectrum disorder.

Hage, Sawasaki, Hyter and Fenandes (2022) identified social communication and pragmatic skills of children with autism spectrum disorder and developmental language disorder. According to the study, social and pragmatic deficits in autistic spectrum disorder children were more severe than those in children with developmental language problem.

Hernandez, Quinto, Martin and Adam (2024) conducted a systematic review to examine tools used to assess pragmatic language skills in individuals with intellectual disabilities. Pragmatic skills, essential for effective communication and social interaction, are often impaired in this population. Out of 172 studies, 20 met inclusion criteria. Findings revealed inconsistencies among assessment tools and a lack of adaptation to the unique needs of this group. The authors stress the need for standardized, tailored tools to accurately evaluate pragmatic abilities and support individualized intervention planning.

Indian Studies

Anjana (1999) studied the pragmatic abilities of children with autism spectrum disorder (ASD's) in comparison with typical developing matched for age range between 3-6 years. Pragmatic skills of all the participants were assessed on parameters adapted from the test by Roth and Spekmann (1984). The results indicated quantitative and difference between two groups. The group of children with ASD used language predominately for non-social or quasi-social purpose, exhibited higher turn taking behaviour during the parent child interaction and used more of off topic utterances.

Shilpashri (2010) examined pragmatic skills in children with ASD. The study showed that among the 14 pragmatic skills that were initiated by the caregiver, the response for labeling was mastered only in few children with ASD. The results revealed that the percentage of response from the children with ASD to a caregiver's initiation of pragmatic skills and on self-initiation was not linear or constant for all the pragmatic with respect to age, as compared to the performance of typical children.

Shetty and Rao (2014) studied language and communication analysis in children with verbal autism. The result revealed that overall delay in language development, there are difference among

the Mental age matched normal and verbal autistic children. These differences are noticeable in syntactic and pragmatic aspects as compared to the phonological of semantic aspects.

Xavier, Santhana, Sunny, Kumaraswamy and Rao (2015) assessed pragmatic skills in 10 Malayalam-speaking children with Down syndrome aged 4–12 years, grouped by mental age (4–7.11 and 8–11.11 years). Result shows that significant age-related differences were found in both clinician-initiated and self-initiated skills. Older children showed improvements in skills like eye contact, joint attention, turn-taking, and topic management. Skills like smiling, requesting objects, and feedback remained unchanged, while negation declined with age. Self-initiated skills such as refusal, narration, and repair improved, but communicative intent and questioning remained consistent across ages.

Shilpashri and Chengappa (2016) compared five pragmatic skills in six Kannada-speaking children with autism (language age 1–2 years) and six typical children. One-hour mother–child interactions were recorded and analyzed for communicative intent, refusal, negation, requests, and responses to requests. Findings highlight differences in the frequency of pragmatic skill use between the two groups.

Abraham and Kumaraswamy (2019) analyzed pragmatic abilities in children with intellectual disability and to compare the findings with typical children.30 subjects with intellectual disability within the age range of 8-13 years (mental age: 4-5 & 5-6) and 20 typical children of age range (4-5yrs & 5-6 yrs). The result indicated that children with intellectual disability have poor pragmatic skills when compared to typical children and also, 5-6 years old group showed better performance than 4-5 years old group.

Shetty and Rao (2019) examine pragmatic skills in verbal autistic children compared to typical children 4–5-year-olds. Using play-based interactions, 14 pragmatic behaviors were analyzed in 10 typical children and 30 autistic children with a comparable mental age. While typical children showed strong performance across most skills, autistic children showed strengths in labeling and requesting but had difficulties with topic initiation, conversational repair, and commenting. Results suggest that targeted training may improve certain pragmatic skills in children with autism.

Shilpashri and Chengappa (2020) examined pragmatic skills questioning, answering, and adding information in Kannada speaking children with Autism Spectrum Disorders (ASD) and typical children, both with a language age of 2–4 years. Two groups were studied: Group A typical children and Group B children with ASD. Using a one-hour semi-structured mother-child play session, interactions were audio-video recorded and analyzed for the frequency of pragmatic skill use. Results showed significantly lower use of these skills in children with ASD compared to their typical children.

Dudwadkar, Venkatachalam, Chheda, Shinde, Kale and Priyadarshi (2022) assessed pragmatic abilities in children with autism spectrum disorders and the study emphasizes the necessity to improve pragmatic abilities in kids with autism spectrum disorder as a part of communication, in addition to language form and content.

Bansal, Shetty and Kumaraswamy (2023) assessed pragmatic abilities of typical Hindi-speaking children aged 6–8 years using a qualitative approach. Fifty children with no language or developmental disorders were observed in naturalistic settings, supported by audio and video recordings to capture real-life communication. Results showed that topic initiation and narration were not fully acquired by the age of 7.11 years however; all other child-initiated pragmatic skills were acquired by this age. The comparative values of pragmatic skills across age groups and genders showed no significant difference.

Need of the Study

Pragmatic language difficulties in children with verbal autism can significantly impact their social interactions and communication effectiveness. However, there is limited research specifically profiling these challenges in Malayalam-speaking children. Malayalam, being a linguistically rich and morphologically complex Dravidian language, presents unique features in terms of discourse structure, politeness markers and context-dependent language use. These linguistic characteristics may influence how pragmatic skills are acquired and manifested. Therefore, understanding the pragmatic abilities of children with verbal autism in Malayalam, in comparison to their typical children, is crucial. Such insights will aid in developing targeted assessment tools and effective therapeutic interventions that are culturally and linguistically appropriate.

CHAPTER 3

Methodology

Aim

The aim of the study was to profile pragmatic skills in children with verbal autism and compare the findings with typical children.

Participants

The study included 30 children diagnosed with verbal autism referred to as the clinical group. The participants were selected from private clinics and rehabilitation Centres and 20 typical children formed the reference group. According to clinical records all participants used phrases and simple sentences. The chronological age of the participants ranged from 5 to 13 years. The reference group consisted of 20 typical, school-going children within the same age range. They were enrolled in Malayalam-medium schools in the Kannur district of Kerala and included an equal number of boys and girls (ten boys and ten girls).

Inclusion criteria

1. Malayalam as a native language.
2. Children with autism with mild to moderate severity.

Exclusion criteria

1. Children with severe autism disability.
2. Children with any physical handicap.

Procedure

An interactive session between the clinician and child was video recorded for 20 minutes in a comparatively quiet and well illuminated room. The initial 10 minutes for spontaneous speech, spontaneous replies were received in following 10 minutes. The video samples were recorded by

using smart phone. To aid the interaction between the clinician and child, the materials like toys and picture card were used. Sample collection was based on the study done by (Shilpashri, 2010).

Material used for sample collection

Pictures description (Animals, Birds, Zoo, Park, Object)

General conversation (Name, School name, Family members)

Answering questions were asked on the topic (Glass, Pen, Book)

Different parameters used for pragmatics are;

I. Response for eye contact.
II. Smiling.
III. Response for gaze exchange.
IV. Response for joint attention.
V. Response for request of object and/or action.
VI. Response for labeling.
VII. Answering questions.
VIII. Response for negation.
IX. Response for turn taking.
X. Response for conversational repair.
XI. Response for topic initiation.
XII. Response for topic maintenance.
XIII. Response for comment/ feedback.
XIV. Response for adding information.

Analysis

The collected sample was analysed. Every correct response for pragmatic skills listed above were given a score of '1' and No response for any of the pragmatic skills were scored '0'.The obtained score were analyzed statistically and the results are discussed in the next chapter.

CHAPTER 4

Result and Discussion

The present study was aimed to assess the pragmatic profiling in children with verbal autism and to compare them with those of typical children speaking Malayalam aged 5 to 13 years. For this purpose, specific tasks were used to evaluate pragmatic performance. The results obtained are discussed below.

Table 4.1:

Showing the comparison of pragmatic skills between the group of typical children and children with verbal autism using a task general conversation within the range of 5 to 13 years.

		Group				Testing proportions - Z test	
		VERBAL AUTISM		TYPICALLY DEVELOPING CHILDREN			
		Yes		Yes			
		Count	Row N %	Count	Row N %		
TASK 1: GENERAL CONVERSATION	Response for eye contact	20	66.7%	20	100.0%	0.006	HS
	smiling	13	43.3%	20	100.0%	0.000	HS
	Response for gaze exchange	16	53.3%	19	95.0%	0.003	HS
	Response for joint attention	4	13.3%	20	100.0%	0.000	HS
	response for request of	6	20.0%	18	90.0%	0.000	HS

	object and/or action						
	Response for labeling	13	43.3%	19	95.0%	0.001	HS
	Answering questions	18	60.0%	19	95.0%	0.008	HS
	Response for negation	7	23.3%	19	95.0%	0.000	HS
	Response for turn taking	5	16.7%	19	95.0%	0.000	HS
	Response for conversational repair.	1	3.3%	17	85.0%	0.000	HS
	Response for topic initiation	1	3.3%	16	80.0%	0.000	HS
	Response for maintenance	12	40.0%	20	100.0%	0.000	HS
	Response for comment/ feedback	0	0.0%	18	90.0%	0.000	HS
	Response for adding information	0	0.0%	16	80.0%	0.000	HS

Table 4.1 shows that children with verbal autism demonstrated significant pragmatic difficulties in comparison to typical children during the general conversation task. All measured behaviors showed highly significant differences (HS**)** between the two groups. However children with verbal

autism had reduced responses for eye contact, smiling, gaze exchange, joint attention, labeling, answering questions, requests, negation, turn-taking, repair, topic initiation, and maintenance.

Table 4.2:

Showing the comparison of pragmatic skills between the group of typical children and children with verbal autism using a task picture description within the range of 5 to 13 years.

		Group				Testing proportions - Z test	
		VERBAL AUTISM		TYPICALLY DEVELOPING CHILDREN			
		Yes		Yes			
		Count	Row N %	Count	Row N %		
TASK 2 : PICTURE DESCRIPTION	Response for eye contact	21	70.0%	21	100.0%	0.002	HS
	smiling	15	50.0%	21	100.0%	0.000	HS
	Response for gaze exchange	20	66.7%	20	95.2%	0.006	HS
	Response for joint attention	14	46.7%	21	100.0%	0.000	HS
	response for request of object and/or action	15	50.0%	21	100.0%	0.000	HS

	Response for labeling	21	70.0%	21	100.0%	0.002	HS
	Answering questions	21	70.0%	21	100.0%	0.002	HS
	Response for negation	9	30.0%	21	100.0%	0.000	HS
	Response for turn taking	5	16.7%	18	85.7%	0.000	HS
	Response for conversational repair.	0	0.0%	16	76.2%	0.000	HS
	Response for topic initiation	2	6.7%	18	85.7%	0.000	HS
	Response for maintenance	13	43.3%	21	100.0%	0.000	HS
	Response for comment/ feedback	0	0.0%	20	95.2%	0.000	HS
	Response for adding information	1	3.3%	16	76.2%	0.000	HS

From above table it can be seen that children with verbal autism demonstrated notable pragmatic difficulties compared to typical children for picture description task. Highly significant differences (HS) were found across all measured behaviors, including eye contact, smiling, gaze exchange, joint attention, request, labeling, answering questions, and responding to negation, turn-taking, conversational repair, topic initiation, and topic maintenance, providing feedback and adding new information.

Table 4.3:

Showing the comparison of pragmatic skills between the group of typical children and children with verbal autism using a task question answering within the range of 5 to 13 years.

		Group				Testing proportions - Z test	
		VERBAL AUTISM		TYPICALLY DEVELOPING CHILDREN			
		Yes		Yes			
		Count	Row N %	Count	Row N %		
TASK 3: QUESTION ANSWERING	Response for eye contact	22	73.3%	19	100.0%	0.057	NS
	smiling	15	50.0%	19	100.0%	0.002	HS
	Response for gaze exchange	17	56.7%	18	94.7%	0.015	Sig
	Response for joint attention	11	36.7%	19	100.0%	0.000	HS
	response for request of object and/or action	10	33.3%	19	100.0%	0.000	HS
	Response for labeling	16	53.3%	19	100.0%	0.003	HS
	Answering questions	21	70.0%	19	100.0%	0.035	Sig
	Response for negation	9	30.0%	19	100.0%	0.000	HS

	Response for turn taking	3	10.0%	17	89.5%	0.000	HS
	Response for conversational repair.	0	0.0%	14	73.7%	0.000	HS
	Response for topic initiation	0	0.0%	15	78.9%	0.000	HS
	Response for maintenance	13	43.3%	19	100.0%	0.001	HS
	Response for comment/ feedback	0	0.0%	19	100.0%	0.000	HS
	Response for adding information	0	0.0%	14	73.7%	0.000	HS

Table 4.3 shows that children with verbal autism demonstrated notable pragmatic difficulties compared to typical children during the question-answering task. Highly significant differences (HS) were found for smiling, joint attention, response to requests, labeling, negation, turn-taking, conversational repair, topic initiation, maintenance, comment/feedback and adding new information, indicating severe impairments in these core areas of social communication. Significant differences (Sig) were observed in gaze exchange and answering questions and No significant difference (NS) was noted for eye contact though children with verbal autism still showed reduced responses compared to their peers.

Discussion

From the above results it is clearly evident that children with verbal autism consistently exhibited significant challenges in pragmatic communication compared to typical children aged 5–13 years across all three tasks: general conversation, picture description, and question answering. In general conversation and picture description, they had significantly lower rates of eye contact, smiling, gaze exchange, joint attention, labeling, answering questions, and responding to negation and requests, with major challenges in conversational turn-taking, repair, topic initiation, maintenance, feedback, and adding new information were showing a highly significant difference. Question-answering, deficits persisted in all these skills, except eye contacts were not significant. Gaze exchange and answering questions, which showed a significant difference.

The results of present study are in accordance with the previous Indian studies (Shilpashri & Chengappa; 2016) and (Shetty & Rao; 2019) which reveals that pragmatic tasks are difficult for children with verbal autism compared to typical children.

CHAPTER 5

Summary and Conclusion

Pragmatic language refers to the appropriate use of language in social contexts, including skills such as eye contact, turn-taking, topic initiation and maintenance, joint attention, the use of gestures and conversational repair. In children with verbal autism, these pragmatic abilities are often significantly impaired despite adequate vocabulary or grammar skills. Such deficits can impact their ability to engage in meaningful interactions, participate in classroom activities and develop peer relationships.

The present study aimed to assess and compare pragmatic skills in children with verbal autism and typical children speaking Malayalam. A total of fifty children, comprising thirty with verbal autism and twenty typical children, aged between 5 to 13 years were included. The assessment involved three structured tasks general conversation, picture description and question-answering to elicit naturalistic language use. Responses were recorded, analyzed, and interpreted across key pragmatic domains.

The findings of the study revealed that children with verbal autism demonstrated considerable difficulties across most pragmatic skills when compared to typical children. These included reduced eye contact, limited use of gestures, poor turn-taking, minimal topic initiation and challenges with conversational repair and joint attention. Such patterns reflect the core features of social communication deficits observed in autism.

The results of the present study are consistent with earlier research reported that children with autism used language more for non-social purposes and displayed higher turn-taking but increased off-topic utterances. Shilpashri (2010) and Shilpashri & Chengappa (2016, 2020) noted that pragmatic skills like labeling and responding to requests varied significantly among children with ASD and were not always consistent with age. Shetty and Rao (2014, 2019) further emphasized that children with verbal autism, though having comparable mental age, still performed poorly in pragmatic domains such as topic management and commenting. The current findings Dudwadkar, Venkatachalam, Chheda, Shinde, Kale and Priyadarshi (2022), who emphasized the need to focus on pragmatic aspects in therapy beyond language form and content.

In conclusion, the study supports the understanding that pragmatic challenges are not uniform across children with autism and vary based on individual cognitive and communicative profiles. It highlights the need for detailed pragmatic profiling and individualized interventions.

Clinical implication

The present study gives insights to children with verbal autism who speaks Malayalam often struggle with using language socially even if they have good vocabulary and grammar, showing difficulties with eye contact, gestures, turn-taking, topic changes, joint attention and fixing misunderstandings. Clinically, this means therapists should assess the pragmatic skills in real-life situations like play or storytelling, not just in tests. Interventions work best when they start by building social thinking, then teach clear social steps such as greetings, maintaining conversation and using body language through fun play with peers, using video feedback, parent coaching and simple stories to help these skills stick at home and school.

Limitations of the study

Lesser sample size

Age ranges of 5-13 years were taken for the study.

Limited parameters of pragmatic skills were selected.

Future directions

Studies can be conducted in different age groups of children with verbal autism and typical children. Future research can explore pragmatic skills across various Malayalam dialects. Detailed research can be extended to other clinical populations with communication disorders.Comparative studies between different age groups can be conducted to understand developmental patterns in pragmatic skill acquisition.

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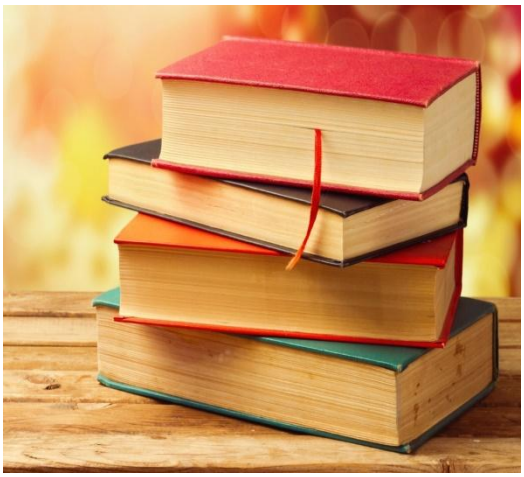
APPENDIX

CHAPTER 7


ZOO



CONSENT LETTER

I hereby give my consent for my participation in the project entitled "**PRAGMATIC LANGUAGE PROFILING IN VERBAL AUTISM".** I understand that the person responsible for this project is **SELEXTEENA BOBAN** under the guidance of **DR. SATISH KUMARASWAMY**.

She has explained that this study is part of a project with the following objective: To collect valuable information on the pragmatic (social) language skills of children with verbal autism. She has explained the procedures to be followed and has described benefits to be expected.

It has further been explained to me that there is **no risk** involved in participation in this study. It has further been explained to me that the total duration of my child's/ my participation will be **less than 30 minutes**. Only Selexteena Boban, under the guidance of Dr. Satish Kumaraswamy, will have access to the data collected for this study; and all data associated with this study will remain strictly confidential. Selexteena Boban, under the guidance of Dr. Satish Kumaraswamy, has agreed to answer any enquiries that I may have concerning the procedures.

I understand that I may discontinue this study at any time I choose without penalty.

Signature of the subject/Parent/Guardian: ————

Date: ————

Signature of the investigator: ————

Date: ————

Signature of the supervisor: ————

Date: ————