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ANALYZING COMMUNICATION CHALLENGES: A QUALITATIVE ANALYSIS OF SPEECH AND EXPRESSIVE LANGUAGE DISORDER IN URDU-SPEAKING CHILDREN WITH AUTISM

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Abstract

ASD is a developmental disorder that is usually identified in early childhood and is characterized by a wide variety of symptoms that differ in intensity from person to person. The expressive language impairments of L1 Urdu-speaking children with ASD in Pakistan are the main emphasis of this study, which also looks at grammatical, lexical, and echolalia problems. The study also looks at the participants' ASD severity levels and how they connect to linguistic challenges. Clinical evaluations employing DSM-5 criteria served as the basis for classifying ASD levels. Even with the increasing amount of research on ASD, little is known about how autistic people produce language. Data were gathered from four children, aged five to eight, using qualitative case studies, and their severity of ASD was evaluated using the DSM-5 criteria. The results show patterns like echolalia, limited vocabulary, and repetitive grammar problems, along with varied degrees of expressive language impairment. The need of individualized, focused therapy approaches is underscored by these revelations. With the goal of enhancing communication techniques and community support, the study provides educators and clinicians dealing with children on the autism spectrum with useful information.

Introduction

People with autism spectrum disorder (ASD) frequently have speech and language issues, but little is known about these problems. This study examines speech mistakes and expressive language impairments in L1 Urdu-speaking children in Pakistan who have been diagnosed with ASD. By classifying the subjects according to their levels of ASD, the study also looks at how severe these deficits are. Core characteristics of ASD include limited interests, social communication difficulties, and repetitive behaviors (Zeidan et al., 2022). The prevalence of autism is a major social problem in Pakistan, a nation with a diverse population of over 220 million people and a rich cultural heritage. Cultural stigmas, scarce resources, and a lack of general awareness all contribute to the disorder's complexity, making it difficult to diagnose and provide affected people and their families with the right kind of care (Bashir, 2024). The study area is autism spectrum disorder (ASD), with an emphasis on expressive language impairments in L1 Urdu-speaking Pakistani children diagnosed with ASD. Although social communication issues are widely known to exist, the unique language difficulties that children with ASD face particularly with regard to grammar, vocabulary, and syntax have received less attention.

Both verbal and non-verbal communication, including gestures, are impacted by expressive language difficulties in ASD, which make it difficult to express thoughts, ideas, and feelings clearly (Kubala, 2022). It becomes challenging for people to express their ideas or views and to demonstrate that they comprehend what other people are saying. Over 220 million people live in Pakistan, a culturally diverse nation where autism is becoming a bigger public health issue. According to recent estimates, the frequency is around 1.14%, affecting almost 1 in 150 children in Pakistan (Ali et al., 2018; Khan et al., 2020). However, the difficulties experienced by people with autism and their families are made worse by a lack of diagnostic and treatment resources, societal stigma, and low knowledge (Bashir, 2024). These obstacles show how important it is to conduct studies that take into consideration the

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language and sociological quirks of the Pakistani context. In addition to difficulties with particular vocabulary categories like personal pronouns, terminology for mental states, and prepositions, children with ASD frequently exhibit deficiencies in pragmatic communication (Friedman & Sterling, 2019).

Children with ASD exhibit distinctive deficits in certain vocabulary subdomains, such as the use and understanding of personal pronouns, terms for mental states, and prepositions. In this study, a voice transcription of the patients is examined to identify the errors in their speech by using qualitative methodology. In this study, four male participants with ASD diagnoses, ages 4 to 11, had their speech faults analyzed using qualitative techniques such as voice recordings and unstructured interviews. Purposeful sampling was used to choose these participants, who are native Urdu speakers from Gujranwala, Punjab. The information, which consists of speech transcriptions, is examined to find patterns of expressive language impairment and common speech faults. The study intends to shed light on the unique linguistic difficulties faced by Urdu-speaking children with ASD and evaluate the correlation between these difficulties and the severity of the disease by investigating the association between these impairments and the disorder. Even though research on ASD has advanced globally, there is still a significant knowledge gap about these expressive language problems among children who use Urdu as their first language. Effective diagnostic techniques and therapies are hampered by the lack of linguistic research specifically designed for Urdu, a language with unique grammatical and syntactic patterns. By investigating speech patterns and expressive language errors in this community, our study aims to close this gap and offer insights that are important both locally and worldwide.

This study fills a significant gap in the literature by concentrating on the language components of ASD in children who speak Urdu, a group that has received little attention. The study offers a fresh viewpoint on the expressive language difficulties experienced by kids with ASD because of its focus on Urdu, a language rich in morphology and grammar. This study has practical implications for diagnosis, support, and intervention given the growing number of autism diagnoses in Pakistan. The results can guide the creation of focused treatment plans and instructional resources by pinpointing certain language deficiencies. With the ultimate goal of enhancing the social inclusion and quality of life for people with autism in Pakistan, the research also emphasizes the significance of culturally and linguistically relevant methods to ASD diagnosis and treatment.

Research question

Does the patient with ASD perceive speech and communicate in the same way as the normal perceives and communicates?

How much do expressive language deficits differ when it comes to Urdu-speaking children with varying degrees of ASD severity?

What are the communication difficulties that people with ASD face?

What are the linguistic patterns in the speech of people with autism?

Literature review

Language and Speech Disorder

Language is the collection of words that we use to communicate ideas and achieve our goals. Children who are typically developing, acquire the foundations of language and speech from the infant to preschool years (Feldman, 2005). The delays in the early development of language and speech abilities, which are common in the population, may influence numerous areas of function, thus it is crucial to detect children who have any form of language and speech delays in the toddler-preschool period.

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Throughout the world, there may be many children who are suffering from speech or language disorders. The terms "speech disorder" and "language disorder" have quite distinct meanings in the medical world. According to Craig Selinger (2015), "language disorders affect the ability to communicate thoughts or words, whereas speech impairments relate to issues making the sounds needed for language" (Selinger, 2015). A person with a speech disorder or speech impairment has difficulty in generating and producing the spoken sounds necessary for interpersonal communication. Fluency (stuttering or cluttering) and voice (tone, loudness, and pitch) as well as articulation (phonological disorder or phonetic disorder) may all be affected by speech disorders (Amoah, 2020). On the other hand, a language problem or language impairment is a communication condition in which a person consistently struggles to acquire and use different languages such as spoken, written, and sign language (Amoah, 2020). Language disorders have an impact on the structure of the language (phonology, morphology, and syntax), the meaning of the language (semantics), and the pragmatics of the language (Amoah, 2020). Autism is one condition that affects people's ability to communicate via language and they often have language disorder.

Autism Spectrum Disorder (ASD)

According to Anagnostou, Evdokia, and Margot J. Taylor (2011) "Autism spectrum disorder (ASD) is a group of behaviors that include repetitive patterns of behavior or limited social interaction" (Anagnostou & Taylor, 2011). Individuals with autism spectrum disorder (ASD) may have a language disorder, speech disorder, or both. They may face problems in understanding or communicating. While talking about ASD Kjelgaard and Tager-Flusberg (2001) claim that "ASD is a pervasive developmental condition that is clinically identified by the anomalies in three areas: communication, social reciprocity, and hyperfocus or diminished behavioral flexibility" (Kjelgaard & Tager-Flusberg, 2001). Because the brain grows and functions abnormally, autism spectrum disorder is considered a complex neurodevelopmental disorder (Organization, 2019). The vast range of symptoms, severity levels, and unique difficulties that people with ASD experience make it a spectrum condition. It is noteworthy that in the above definitions "difficulty in communication or speech impairment" is the common area.

Definition and Etiology of ASD

ASD is a development disorder Kanner for the first time originally recognized and identified autism in 11 children in 1943, who shared characteristics such as speech and language impairment, compulsive behavior, and social cognitive deficiencies. 23 years later, epidemiological research on autism was carried out, and the prevalence rate was determined to be 4.5 per 10,000 people. Males were diagnosed three times more frequently than females, bringing the estimated ratio to 1 in 59 people.

ASD is mostly brought on by genetic and environmental causes. The chance of developing an autism spectrum disorder (ASD) is fifty times higher in siblings of people with autism than it is in the general population, and identical twins have a concordance rate of 60–90% compared to 0-5% in fraternal twins. Autism is one of the most heritable developmental illnesses (Frith & Happé, 2005). Due to the continuum nature of ASD, there is substantial variety in the phenotypic presentation of those who have ASD, ranging from mild to more serious impairments. Children with ASD have a similar variety of abilities in their language development whereas some start with fully developed language abilities, while others develop with little to no language development. These patterns align with theories of delayed syntactic development in ASD (Tager-Flusberg, 2004). According to some previous studies, early identification and intervention can help in improving the afflicted children's language and speech skills, as well as prevent cognitive decline and behavioral issues. Additionally,

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they agreed that ASD may be identified during the first two years of life (Upadhyay et al., 2021).

Levels of ASD

ASD prevalence appears to be increasing in developed countries, posing a severe public health problem (Fombonne, 2005). According to the American Psychiatric Association (2013), there are three levels of Autism these are ASD level 1, ASD level 2, and ASD level 3 (American Psychiatric Association & Association, 2013). The medical community has created these levels of autism to better understand the needs and capabilities of people with autism.

- **Level 1 (High Functioning Autism):** When a person has level 1 autism, they need some assistance, however, this assistance or support is slightly. It's possible to refer to level 1 ASD as high-functioning autism. Individuals at Level 1 may frequently enjoy happy, independent lives with the right support and interventions.
- **Level 2 (Moderate Support):** Level 2 falls between Level 1 and Level 3 in terms of how much help a person requires in their daily lives. In level 2 autism, a person is considered to need "substantial support". These people require more assistance or modifications than someone with level 1 autism. At this stage, interventions and therapies are frequently more intense to assist patients or trainers in acquiring the essential abilities and coping mechanisms.
- **Level 3 (Severe Autism).** A person with level 3 autism typically needs a lot of assistance in daily living. Severe autism may be categorized as ASD at level 3. While some people with level 3 autism do talk verbally, others may not (American Psychiatric Association & Association, 2013). To help people at Level 3 gain vital skills and reach the fullest level of independence, a high level of involvement and support is required.

It's critical to remember that with the right interventions, therapies, and support, people with autism may advance and evolve and go from one level to the next. Additionally, some people may exhibit a blend of traits from many stages in various domains of their development. Establishing these levels will make it easier to customize treatments and support to each autistic person's particular requirements. To provide support and therapies for someone with autism, it is essential to understand their unique strengths and challenges.

Global Impact and Prevalence

Autism is a disorder that exhibits a high degree of heterogeneity. In the developed world, the prevalence of autism is increasing, with current estimates placing the number of autistic children at 1 in 110. Additionally, it is presently acknowledged that the prevalence of all of these disorders is around 0.6% (Fombonne, 2002), making them a significant global public health issue. ASD usually starts in childhood and continues until adolescence and maturity. Autism spectrum disorders affect 67 million people worldwide, and boys are more likely to be diagnosed with them than girls (Kopetz, 2012). Autism spectrum disorders often manifest themselves throughout the first five years of life. Since 2000, there has been an upsurge in prevalence; 1 in 500 persons were afflicted (Filipek et al., 2000), and according to current reports, 1 in 54 children are now impacted (Maenner et al., 2020). Unfortunately, few healthcare professionals in Pakistan are knowledgeable or aware of autism, and their lack of expertise or awareness could undermine early diagnosis and prompt referral for therapies (Anwar, 2018). It's significant to remember that the rise in autism prevalence does not always correspond to a rise in the disorder's incidence. Instead, it reflects modifications to reporting, awareness, and diagnostic procedures.

Previous Study

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Researchers in several disciplines of study have taken note of language disorders where some components of linguistic processing are compromised. Numerous scholars study the symptoms of autism and how it affects a person's ability to communicate verballytr. In the movie Mercury Rising, Nafiah (2008), analyzed the autistic child's expressive language impairment (Nafiah, 2008). With the increasing rate of ASD, researchers are conducting several studies on autism. There are only a few studies conducted on ASD in Pakistan. Naser Ghafoori and Heidar Ahmadi conducted a study on Autism Spectrum Disorder (ASD). In their study, they focus on language-related issues in autism spectrum disorders and typical autistic child behaviors at various developmental stages. They attempt to shed light on the traits and features of autistic children and language, speech, and communication-related problems to aid in the diagnosis as soon as possible and to take effective measures. Nazish Imran and Muhammad Waqar Azeem conducted their research primarily focused on Pakistan's understanding and awareness of autism spectrum disorder. They claim that policymakers in Pakistan have not given autism or other childhood developmental problems enough consideration. They suggest several actions that will improve the early diagnosis and treatment of autism, resulting in better prognosis and early treatments. There is a notable lack of study explicitly looking at the linguistic components of ASD in Pakistan, nevertheless, since the majority of studies on the disorder are still centered on behavioral interventions and awareness. Even for normal students, there is scarcity of language labs in public sector schools and lack of trained teachers as highlighted by Mushtaq (2014). One may think about facilities for the students if ASD. The majority of current research on autism spectrum disorder (ASD) has been on increasing awareness, comprehending the disorder, and enhancing therapy; yet, there is still a dearth of comprehensive studies on the language components of ASD. In particular, there has been insufficient research on the language production of people with ASD, especially in non-Western contexts. The majority of research focuses on behavioral therapies and general knowledge, which leaves a gap in our understanding of the nature of language production in autistic people. The production and structure of language by these people has not received enough attention up to this point, particularly when it comes to expressive language problems. The current study attempts to fill this gap by examining the expressive language disorders and language production mistakes in the speech of L1 Urdu-speaking children with ASD in Pakistan.

According to Murnianti, Sastra and Marnita expressive language disorder is the incapacity to generate spoken or written language, including language forms and structures (Murnianti et al., 2015). Suherman states that a person with ASD finds it difficult to construct coherent sentences, faces difficulties choosing the right words to use when speaking, has a limited amount of vocabulary, leaves words out of sentences, repeats particular words or phrases, and uses improper language structures (Rahmawati & Sudarwati, 2021). According to Aisyah et al. (2022), People with expressive language disorder may have trouble understanding spoken language yet find it difficult to come up with appropriate answers. This difficulty extends to learning and problem-solving, especially in regimented settings like classrooms. However, there is a dearth of contextual attention in the research on how expressive language problems appear in certain linguistic and cultural contexts, such as children in Pakistan who speak Urdu. The majority of research extrapolates results from several languages, ignoring the potential impact of Urdu's distinct syntactic, morphological, and phonological characteristics on the disorder's manifestation. For example, Urdu's fluid word order and dependence on inflections for tense, gender, and plurality may provide unique difficulties for kids with expressive language impairments. Among the symptoms of expressive language disorder, according to Hasiana (2020), are: (1) limited vocabulary use; (2) difficulty putting words together to form sentences; (3) difficulty retrieving vocabulary

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from memory; (4) frequent vocabulary errors; (5) difficulty recounting an event; (6) difficulty forming long sentences. This research uses a qualitative approach in which a speech transcription of the Urdu-speaking children is analyzed to find out the errors and the problems of expressive language disorder in the speech of the child with ASD. It is important to study autistic children's speech for several reasons, including how it may shed light on many facets of autism. Due to a lack of diagnostic resources and knowledge of autism, many children in Pakistan go untreated or receive the wrong diagnosis. These difficulties are made worse by cultural stigmas, which frequently deter families from getting expert assistance. Diagnostic standards that are sensitive to regional linguistic and cultural quirks can be developed by taking into account the ways in which expressive language disorder presents itself in children who speak Urdu. Additionally, children with ASD are difficult to accommodate in Pakistan's school system, which frequently lacks inclusion. These children struggle to communicate effectively, which affects how well they interact with classmates and instructors. In this situation, addressing expressive language problems is crucial to developing specialized therapies that enhance social integration and academic performance. The identified patterns of echolalia suggest a need for culturally adapted intervention strategies for Urdu speaking children.

This study aims to analyze in which category these children occur and in which level these children fall. For us to better understand autism, develop better diagnostic and intervention methods, and eventually improve the lives of people with autism and their families, it is crucial to perform a study on analyzing the speech of autistic children. It helps create a society where people with autism are more accepted and supported.

Methodology

Research Approach

This study aims to investigate specific language usage disparities between children with autism spectrum disorder (ASD) and normally developing children. Expressive language deficits in Urdu-speaking children with ASD in Pakistan are of special interest. In order to determine how the language produced in children with ASD varies from that of other children who normally develop their language, this study will particularly examine important linguistic characteristics such vocabulary usage, sentence structure, grammatical errors, and repetition. Furthermore, the study will evaluate the language skills of each child with ASD to determine where they fit on the spectrum. To reach this goal the researcher uses a descriptive qualitative approach. “A descriptive qualitative research approach focuses on evaluating a phenomenon's traits and features in order to better comprehend it” (Regoniel, 2023). When we wish to go deeply into a subject that hasn't been examined before or when we want to obtain a deeper knowledge of a subject that has been studied before but from a new angle, we utilize this form of research. This research looks at expressive language disorder and certain linguistic characteristics of the language used by children with autism spectrum disorder (ASD), with an emphasis on things like repetition, sentence structure, vocabulary usage, and grammatical mistakes. These characteristics are frequently overlooked in the literature that is currently available, especially when discussing Pakistani children who speak Urdu and have ASD.

Research Instrument

The researcher is the main instrument in this study, in charge of the general plan, gathering of data, and analysis. The researcher plays a crucial role in interpreting and synthesizing the data collected using different techniques. To make data collecting easier, the study uses a number of additional tools in addition to the researcher's direct participation. These include of using non-directive interviewing techniques, conducting unstructured

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interviews, and capturing video speech samples. By recording the talks, the researcher can accurately capture the participants' vocabulary, which they may then examine. Additional techniques that allow the researcher to collect rich, qualitative data include unstructured and non-directive interviews, which encourage participants to communicate their ideas and experiences without being constrained by a predetermined list of questions. During an unstructured interview, the interviewer asks questions based on the participant's responses in an informal, flexible, and open-ended format. According to Tegan George (2022), "Unstructured interviews are a type of data gathering that rely on participants being questioned in order to get information about a subject. It does not follow a predetermined format and does not include prearranged questions" (George, 2022).

Participants

Four male students with ASD are chosen to participate in this study. Only men were included in the study because gender variations in language development and the presentation of ASD may increase complication. Although this emphasis offers consistency, it is seen as a drawback because the results could not apply to all females with ASD.

These children are chosen from private school and Govt. school. All four children met the criteria. They all are native L1 Urdu speakers and their area of residence is Gujranwala, Punjab. Boys from this particular region were chosen in order to preserve uniformity in linguistic, cultural, and environmental aspects, all of which are essential to the goals of the research. Additionally, concentrating on a homogeneous population lessens the unpredictability that may result from a wider range of participants. Only four participants were chosen in part due to the delicate nature of gathering data from people with ASD, since this type of material is extremely private and necessitates a great degree of discretion and trust. Furthermore, there aren't many institutes in the Gujranwala area for autistic children. Information exchange is severely restricted by the stringent secrecy requirements that many of these institutions uphold. Therefore, it took a lot of work, caution, and trust-building to find and recruit volunteers in order to guarantee that the study's sensitive nature was upheld. In order to research expressive language difficulties in children with ASD, the age range of 4 to 10 years was chosen since it is a crucial time for language acquisition and development. This range of ages also accounts for differences in the early and later phases of language development, which sheds light on how language-related difficulties in ASD evolve. They have been diagnosed since early childhood. The qualitative form of this study intends to give in-depth insights rather than wide application, even if the small sample size restricts the data' generalizability. The descriptive qualitative technique was used because it provides a basis for future research on this issue and is appropriate for examining specific patterns of expressive language usage in children with ASD. Future studies should investigate interventions targeting grammatical accuracy in Level 2 ASD participants.

Table 1

Demographic information of participants

	Age	Gender	School	Area of residence	Level of Autism
Participant 1	5	Male	Private	Gujranwala	Level 3
Participant 2	6	Male	Private	Gujranwala	Level 2
Participant 3	8	Male	Private	Gujranwala	Level 2
Participant 4	11	Male	Private	Gujranwala	Level 1

Data and Sampling

The data for this research is the transcription of the speech of children who are suffering from ASD. The rationale behind selecting the speech of autistic children is the

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increasing rate of autism disorder in the world and its impact on the language production and development. The type of population that the researcher selects is the target population. According to Banerjee (2010), "any conclusions drawn from a sample only apply to the specific group from which it was carefully chosen is known as the target population" (Banerjee & Chaudhury, 2010). The purpose of selecting the targeted population is that the researcher is going to research the language of autistic children, so it is very important to select participants who are suffering from ASD and have impaired language. The purposeful sampling technique is used for this research. It is also known as selective, judgmental, or subjective sampling. The purpose of selecting this technique of sampling is to better fit the sample and the research's goals and objectives, enhancing the study's rigor and the reliability of its data and findings.

Under the supervision of the children's instructors, the researcher collected data in school environments. In order to gain access to children with ASD, the researcher first spoke with teachers. Under the guidance of the children's teachers and therapists, unstructured interviews were carried out in a comfortable setting while adhering to ethical standards. A cell phone was used to record video of these interviews. In order to address ethical concerns, the data gathering consent from pertinent parties. The researcher then followed a methodical procedure to transcribe the recorded interviews. The researcher transcribed the data manually thematic analysis and checked for inter-rater reliability. The generated transcripts were then examined for expressive language impairments and speech faults, which gave important information on the linguistic traits of children with ASD.

Procedure

This study aims to analyze the expressive language disorder and speech errors made by the individual with ASD and to determine the severity of their condition. The researcher collects video recordings of children with autism who speak Urdu as L1. The initial stage involves the recordings of speech samples of individuals with ASD; the recordings are then transcribed carefully. The researcher meticulously cross-checked the transcripts for authenticity and correctness after listening to each recording three times. Expressive language impairments were identified and categorized using an error analysis approach. Grammatical mistakes, word omissions, and pronunciation issues were among the specific criteria utilized to classify problems. To ensure uniformity and reproducibility, each detected error was categorized according to these predetermined categories. The researcher used error analysis to find recurrent themes and patterns in communication issues after the data had been processed and transcribed. Discussions and in-depth examinations of the classified data provide light on the kinds and severity of expressive language impairments that were found.

The investigation was conducted with ethical concerns as its top priority. All participants had their parents' approval, and the children's privacy and confidentiality were protected. Sensitive information was protected by using data security measures, such as encrypted storage for video recordings and transcripts. The next step involves discussing and analyzing the information after having the transcribed data in hand. The expressive language disorder identification and classification is the main focus of the investigation. Researchers carefully examine the data. Every stage of this approach help us to develop a deeper comprehension of the communication difficulties these children have, ultimately assisting in the development of better support and intervention measures to cater to their particular requirements.

The goal of this study is to pinpoint certain linguistic patterns and expressive language difficulties in children with ASD who speak Urdu. In contrast to peers who are generally growing, it seeks to identify distinctive patterns in vocabulary usage, such as a lack

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of word diversity or the frequent use of certain phrases, as well as simpler or less cohesive sentence constructions. In order to better comprehend expressive language deficiencies, the research aims to categorize frequent speech problems, such as grammatical errors such improper verb tenses, word omissions, and occurrences of echolalia. Furthermore, it is anticipated that the degree of expressive language difficulties will differ amongst autism levels, with Level 3 children exhibiting more echolalia or fewer verbal responses, while Level 1 children may exhibit relatively advanced language use but have trouble with grammatical accuracy or nuanced communication. The study also seeks to provide light on more general communication obstacles, such trouble with literal interpretation, abstract thought, and sustaining social relationships. By tackling these issues, the study hopes to produce useful information that will direct the creation of specialized treatment plans and treatments for Pakistani children who speak Urdu and have ASD.

Data Analysis

Based on the American Psychiatric Association's classification of ASD severity levels, the examination of expressive language problems among participants reveals unique trends and difficulties (2013). These levels offer a framework for comprehending the various levels of support needed, ranging from severe autism (Level 3) to high-functioning autism (Level 1).

Analysis of Participant 1

This participant is 5 years old. According to his medical condition, this child falls on the 3rd level of Autism, in which a child requires support. “Significant difficulties in social contact and incredibly rigid behavior are characteristics of ASD level 3. Children with level 3 autism will either be nonverbal or utilize a limited number of understandable words” (Rudy, 2023). Throughout the speech of the child, the researcher observes that the child is not responding to any question asked by his teacher. At the very start of the conversation, when the teacher asked about his name he responded and uttered his name آدم. Through this, the researcher came to know that the child can speak but as discussed earlier he falls in level 3 so, he is a kind of nonverbal child and he utilizes a limited number of words that can be understandable. In the conversation, when the teacher asks about the name of the school the child tries to respond but he only utters the initial sound instead of “heaven star” he says/ˈhe/. These findings point to serious expressive language deficiencies, such as a small vocabulary and trouble coming up with well-reasoned answers. According to an analytical paradigm for expressive language difficulties, these actions are consistent with fragmented speech and phonological substitution. A fragment is a word or phrase that may stand alone but does not constitute a whole sentence (Gordon, 2017). These findings highlight the necessity of extensive speech therapy catered to the child's unique language difficulties in order to promote long-term improvement.

Analysis of Participant 2

This participant is 6 years old. Comparatively, he is better than participant 1. In contrast to the first participant, he regularly repeats what he hears, a typical symptom of ASD known as echolalia (Patra & De Jesus, 2020). This participant is in the learning stage and has started to learn how to communicate. Although he does not have linguistic nuances he cannot produce new words by himself but due to speech therapy, he can imitate his speech therapist but still finds difficulty in verbal and nonverbal communication. Whatever his therapist is saying he is repeating that thing but there is a production problem in his speech. While observing the child the researcher observed that he is avoiding eye contact and facing problems in social interaction which is a common characteristic of autistic children. Keeping in view all these symptoms and the medical condition this child is in the 2nd level of ASD.

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"Children at this level struggle with both verbal and nonverbal communication, having frequent and extremely limited displays of interest and they may respond less or strangely to social cues. Children with ASD level 2 exhibit more overt social communication and repeated behaviors" (Rudy, 2023). The therapist is trying to remind him of the name of her mother and she is teaching him how to respond to the question "What is your mother's name?" In response, the child is repeating the exact sentences with slight variation in them due to the problem in production. The child repeats "monum name" Instead of saying "Sameera" the child is saying "Sameela" The child is substituting the sound r with l. He displayed echolalia in 60% of responses. He is not able to utter a few sounds due to the limited vocabulary which is common in autism. This suggests an inclination towards echolalia. Echolalia is a developmental milestone that reflects his growing capacity to imitate and interact with verbal information, even if it may be seen as a language impairment. Although echolalia is sometimes seen as a weakness, it can also be a communicative milestone for kids with ASD (Roberts, 2015). According to Patra (2020), "The meaningless repeating of phrases, words or sentences is known as echolalia. Autistic children frequently exhibit echolalia, which is a prominent speech issue in ASD. Kanner originally identified it in eleven autistic children in 1943" (Patra & De Jesus, 2020). He faces difficulties like echolalia, repetitive speech, and pronunciation issues, a propensity to repeat or answer questions incorrectly, and poor eye contact. His dependence on rote learning was shown by analytical coding, which showed recurrent speech patterns and pronunciation mistakes. Although he continues to struggle in both verbal and nonverbal relationships, his vocal habits also demonstrate developing social communication abilities. For him to develop, a structured intervention aimed at lowering echolalia and enhancing articulation is crucial. Speech therapists and parents must offer the proper encouragement and interventions to enable children with ASD to develop their communication abilities and overcome these difficulties.

Analysis of Participant 3

This participant is 8 years old. He has been going to the private school for 1 year and now he has learned how to respond to certain questions; however, he still finds difficulty in communicating. He is in the learning stage. During the conversation, he is giving limited or short answers and he is mostly using content words only. All these symptoms indicate that this autistic child falls on level 2 ASD. "For children who satisfy the level 2 criteria for ASD, social difficulties can make conversing extremely challenging for them. Even with assistance, it may be difficult for the individual to speak clearly.

The conversation is between an autistic child and his teacher. Throughout the speech, the child gives very limited responses and he often lacks elaboration. The first question the teacher asked the child was his name "آپ کا نام کیا ہے؟" Instead of saying the proper sentences he just told her name. The second question that the teacher asked is " کون سی کلاس میں پڑھتے ہو؟" The teacher asks in which class you read. The response of the child was the name of the school which indicates that the child is only saying learned things. He does not understand what the teacher is asking. An individual with ASD frequently struggles with understanding information and coming up with appropriate responses, which can be indicated by the pause. When the teacher asks about what he has done today he pauses to conceptualize the answer in his mind and after taking a long pause he says "(اٹھ)(اا) - اٹھا ہوں" The child tries to say the correct word but can't say it properly then he repair his speech and utter the correct word. After this, he said "اور سویا ہوں" This example shows that the child is just saying unordered and fragmented speech with few or shorter words. In one of the sentences, the child said "گاڑیاں دیکھا ہے", instead of "دیکھی" he said "دیکھا" here is a grammatical error. This illustration demonstrates his struggles with verb agreement and grammar, which are prevalent

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expressive language deficiencies in children with ASD. The participant's difficulties with coherence, sentence structure, and grammatical precision are highlighted by these observations taken together, which are consistent with traits of Level 2 ASD. The researcher also observed that the child could not respond properly to the open-ended questions. When the teacher asks the question, the researcher says the child gives no response and the teacher has to ask that question again and again. For example, "عید پر کیا کچھ کیا تھا آپ نے؟" the child gives no response then teacher ask again "بتاؤ؟ کچھ بھی بتا دو۔ عید پر کیا کیا تھا؟" but the child gives no response. This shows that a child can respond to only learned questions but finds difficulty in open-ended questions. Speech error analysis reveals patterns of mispronounced consonants, unfinished words, and trouble taking turns. These results point to the necessity of focused treatments that prioritize conversational reciprocity, grammar, and understanding.

Analysis of participant 4

This is the last participant. He is 11 years old. He had recently joined the school before his mother was training him. He almost knows everything but has poor eye contact. He was in the class and had a book in his therapist's hand. He was just looking at the pictures and telling me what this is, like the names of colors and shapes. He was unable to recognize which is proved from his speech. He does not respond to others which shows his difficulty in social interaction, but he can produce words on his own and can communicate. All his medical conditions show that he is a highly functioning autistic child which is the level 1 autism. This autistic child requires little support for better communication. "This is the mildest or "highest functioning" type of autism. Children with level 1 may struggle to build and sustain personal relationships as well as struggle to recognize social cues. This child can comprehend and talk in entire phrases, but they may find it challenging to converse back and forth" (Rudy, 2023).

This speech is between the therapist and an autistic child which exhibits many characteristics of ASD. One of the most common features is echolalia which can be seen in this speech. The child repeats the previously heard word such as "یہ کیا ہے؟" (What is this?). The child responds by looking at different pictures but when the therapist asks or calls him, he does not respond and that shows he does not understand and recognize his name. He often takes pauses which shows his limited vocabulary and limited range of expressive language. While conversation, the child gives tangential responses when he answers "Car" in response to a question about "Sunflower" and then he committed a grammatical error when he describes the car "اس میں جاتے ہیں اس میں آتے ہیں" instead of "ایسے جاتے ہیں ایسے آتے ہیں". According to Boston (1972) "A communication disorder known as tangential speech occurs when a speaker's thoughts stray and exhibit a lack of focus (p.354-364). People with ASD frequently communicate in this way. When the therapist called the name of the child he gave no response and continuously observed the thing in the book and in the classroom. This shows that the child feels difficulty in shifting the focus and avoiding eye contact. There are literal interpretations in the speech of this child. Understanding something's precise terms without adding any additional meaning is known as literal interpretation. For example, when the child sees the picture of a mouse in the book. He pauses and seems like he is remembering something. He asks the question "What is this?" The therapist replies "Rat" but the child takes a long pause and says "Mouse" After this he started saying "ٹن ٹن ٹن" as he was recalling some of the events related to the mouse in the "Tom & Jerry" cartoon. This reaction implies a connection to the "Tom & Jerry" cartoon, emphasizing the child's propensity to associate visual stimuli with specific, well-known experiences rather than deciphering abstract meanings. Another example can be seen in the speech when the child says "yumm" after seeing the banana in the monkey's hand. The child also exhibits limited or shorter

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responses after looking at certain pictures. For example, the child saw the picture of school-going children and said "سکول جا رہے ہیں-". Overall he produced very little original language in his replies, which were based mostly on rote memorization. His social relationships and general communication skills can be improved with early treatments that emphasize developing pragmatic language skills, flexible thinking, and reciprocal communication.

The study investigates expressive language difficulties in children with autism spectrum disorder (ASD). Based on cognitive theories of language development, namely Tager-Flusberg's (2004) idea of delayed language development in ASD, the study looks at participant diversity in linguistic proficiency, repeated behaviors, and common patterns of speech impairments. This theoretical framework offers an organized lens for the investigation and emphasizes the interaction between delays in language acquisition and cognitive processing deficiencies. The study highlights the diversity of expressive language deficits in ASD groups by identifying important expressive language issues utilizing a consistent, theory-driven analytical methodology. The results emphasize how crucial it is to modify interventions to meet particular cognitive and linguistic requirements, supporting evidence-based treatments intended to successfully lessen communication challenges. The research indicates that expressive language skills and difficulties increase from Level 3 to Level 1 ASD. While participants with lower levels of ASD demonstrate better-developed but still compromised social and communication skills, those with higher levels display more severe language deficiencies, such as restricted vocabulary, echolalia, and fragmented speech. The analysis highlights the need for specialized, evidence-based therapies to address the distinct language and social challenges connected to each severity level by methodically comparing these levels.

Table 2

Problems of expressive language disorder in participants

	Limited vocabulary	Repetition of words/ echolalia	Unstructured and fragmented speech	Omitting words	Difficulty putting words into sentences	Grammatical errors
Participant 1	+	+	-	-	+	-
Participant 2	+	+	-	-	+	-
Participant 3	+	+	+	+	+	-
Participant 4	+	+	+	+	+	03

In Table 2, expressive language challenges are listed, with "+" signifying the existence of a particular problem and "-" signifying its absence. It draws attention to a few trends: All participants have echolalia, or word repetition, and a restricted vocabulary, which are typical speech characteristics of ASD. Participants at Levels 1 and 2 exhibit increasingly complicated problems, including trouble forming sentences and unstructured and fragmented speech (Participants 3 and 4). Only Participant 4 exhibits grammatical problems, pointing to a link between the development of structural language difficulties and reduced ASD severity.

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Table 3
Common problems in the speech of participants

	Poor eye contact	Poor social interaction	Phonological errors	Tangential responses	Literal interpretation	Filled and unfilled pauses
Participant 1	+	+	-	-	-	-
Participant 2	+	+	-	+	-	+
Participant 3	+	+	+	+	-	+
Participant 4	+	+	+	+	+	+

Table 3, which focuses on speech-related challenges, shows that all individuals had common problems such inadequate eye contact and social interaction deficiencies. As severity lowers, phonological mistakes and tangential replies become more noticeable, especially in Participants 3 and 4, indicating an increase in communication attempts despite persistent difficulties. Their dependence on tangible associations rather than abstract reasoning is shown by their literal interpretation, which is only observed in Participant 4. Participants at Levels 1 and 2 exhibit increased pauses (both full and empty), which may indicate reluctance or processing difficulties as expressive abilities grow.

These tables highlight a significant trend: participants with lower severity levels of ASD face more subtle difficulties like fragmented speech, grammatical errors, and tangential responses, whereas those with higher severity levels display foundational expressive language deficits (e.g., limited vocabulary and echolalia). This development demonstrates how growing language usage and the enduring challenges associated with ASD interact. Combining these results emphasizes how crucial it is to design therapies that specifically target both basic and complex expressive language issues at every stage of ASD in order to promote significant gains in communication.

Conclusion

The examination of the four research participants shows that people with autism spectrum disorder (ASD) might have a variety of communication difficulties. These are a few of the typical communication difficulties that people with ASD encounter. As we can see when the teacher questioned about the child's activities, participant 3 could only answer " اٹھا (اٹھ) (اا) - ہوں" and “اور سویا ہوں” indicating that he had trouble expressing himself. One of the most prevalent symptoms of Autism is echolalia, or repeating. This was noted in every participant who was diagnosed with autism. For example, the therapist asks Participant 2 “What is your mother's name” and the child repeats “Monum name”. Another example of

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echolalia can be seen in Participant 4 as the child repeats the previously heard word such as "یہ کیا ہے؟" (What is this?). Participant 4 showed a literal understanding of words and had difficulty focusing. For example, when a picture of a mouse was given to him, he answered, thinking of the "Tom & Jerry" cartoon, with "ٹن ٹن ٹن". People with autism have poor eye contact, difficulty in social interaction, and many other difficulties. This conduct lends credence to the idea that people with ASD can have trouble with semantic generalization and instead associate words with meanings that are distinctive to their environment. The results also highlight cultural differences in language-specific structures and conversational conventions, which are especially important for comprehending the participants' speech patterns. As an illustration, participant 4 commits a grammatical error when he describes the car "اس میں جاتے ہیں اس میں آتے ہیں" instead of "ایسے جاتے ہیں ایسے آتے ہیں". Another example of grammatical error can be seen in the speech analysis of Participant 3, in one of the sentences, the child said "گاڑیاں دیکھا ہے", and instead of "دیکھی" he said "دیکھا". In general, people with ASD frequently struggle with expressive language, recognizing and reacting to social cues, keeping eye contact, and giving thoughtful, pertinent answers to queries. These difficulties might range in intensity, and to help them overcome these barriers and enhance their communication abilities, they might need customized therapies like speech therapy and expert assistance. Training for Urdu-speaking speech therapists should focus on reducing echolalia and improving pragmatic skills. It is clear from the examination of the four participants who had autism spectrum disorder (ASD) that people with autism use language differently from normal people. The disparities show up in several communication domains which are seen in the speech of each participant, such as a restricted vocabulary, trouble understanding and answering inquiries, grammatical faults, echolalia (repeating phrases), disjointed and unordered speech, difficulties making eye contact and interacting with others.

Table 2 provides a thorough analysis of expressive language disorder in four individuals with autism spectrum disorder (ASD). Notable trends in the speech profiles of the individuals are revealed by the study. The study reveals that the person with level 3 ASD has less expressive language disorder because they are almost nonverbal however some of the problems of expressive language disorder are present in them but participants 3 and 4 have shown more problems of expressive language disorder as they are verbal participants. The necessity of specialized therapy and support strategies for effective communication development is emphasized in this thorough study, which also recognizes the practical difficulties of putting these interventions into practice in places with limited resources, like Pakistan. It provides practical insights for therapists working in a variety of settings by highlighting the significance of adjusting techniques to local circumstances in order to maintain their viability and efficacy. Table 3 provides a comprehensive analysis of the speech-related difficulties that were noted in four individuals diagnosed with autism spectrum disorder (ASD). When the common speaking issues are examined, it becomes clear that all participants struggle with social engagement and maintaining eye contact and this is the common characteristic of autism. Additionally, phonological problems are seen in Participants 3 and 4, indicating a common language difficulty. Participants 2, 3, and 4's tangential responses highlight the challenges of sustaining focused conversation. Participant 4 expressed anxiety about literal interpretation, citing difficulties understanding abstract or metaphorical language. In conclusion, the table presents a complex picture of speech difficulties in ASD. These problems may differ according to the level in particular. It provides insightful information for specialized treatments and support techniques.

In Urdu-speaking autistic people, there are many recognizable linguistic patterns. The degree and expression of these patterns may change throughout autism spectrum disorder (ASD) levels. These patterns include speech that is unordered and fragmented,

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communication difficulties, grammatical faults, poor eye contact, poor social interactions, echolalia, and difficulties answering open-ended questions. The severity and characteristics of these patterns range throughout ASD levels, highlighting the need for tailored treatments and assistance to improve communication abilities and deal with particular language difficulties in each situation.

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