Developmental Patterns of a Child with Autism Spectrum Disorder at General Hospital Of Bondowoso District

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Abstract. This article discusses the development of a 5-year-old child with mild Autism Spectrum Disorder at General Hospital of Bondowoso District. The study aims to explore the child's developmental, daily challenges faced by a child with ASD, and the therapies implemented. The method used in this research is descriptive qualitative method. The data collection in this study used documentation, direct observation of the subject and interviews with the subject's parents. The result shows an explanation of the symptoms that emerge during the subject's developmental stages. The subject shows delayed speech development, difficulty in forming long sentences, limited social skills, unable to stay still and often moving actively, as well as poor fine motor skills. Additionally, the subject also shows improvement or a prognosis towards a better outcome during therapy.
Keywords - Autism Spectrum Disorder; Child's Development; Therapy

I. INTRODUCTION

According to the American Psychiatric Association [1], Autism Spectrum Disorder (ASD) is characterized by persistent deficits in communication and social interaction, as well as repetitive patterns of behavior, interests, or activities. Ratama & Munawaroh [2] define ASD as a neurodevelopmental disorder characterized by diagnostic criteria that include deficits in social communication and social interaction, and the presence of restricted and repetitive patterns of behavior, interests, or activities that can persist throughout life. The term "autism" derives from "auto," meaning self. Symptoms of autism typically manifest before a child reaches 3 years of age. According to DSM V-TR, ASD is classified into three levels: mild, moderate, and severe, based on the level of support required from others in daily functioning. Karhu [3] states that autism is a complex neurological development, and its precise causes remain unclear. Some studies suggest a link between certain metabolic disorders and autism, but further research is needed to establish clear and specific causal factors. Research by Altamimi [4] also suggests disruptions in neuron transmission in the central nervous system may contribute to autism, though a singular and definitive cause has yet to be identified.

Feeney, as cited in Ginting [5], states "Through play, children learn what no one can teach them," indicating that play provides learning experiences that cannot be taught by others. Through play, children explore, learn to socialize with peers, and acquire knowledge on how to interact with others. However, limitations in children with ASD can make it challenging for them to adapt to new environments and socialize with others. Individuals with ASD experience deficits in social interaction, including difficulties in adjusting behavior to suit various social contexts and sharing imaginative play or making friends. This naturally affects their learning process. Piaget, as referenced in Gunarsa [6], highlights that a fundamental aspect of cognitive development is social interaction/transmission, which refers to the influences gained through an individual's relationships with their social environment. Individuals develop based on the interactions they have with their environment.

Children with Autism Spectrum Disorder require appropriate therapy or intervention. Therapies are aimed at improving gross and fine motor skills, enhancing social interaction and adaptation, and promoting independence. Various approaches are employed, such as sensory integration therapy, occupational therapy, speech therapy, group play therapy, animal-assisted therapy, among others. Wiyani [7] notes that when conducted correctly, therapy can provide benefits, such as sensory integration therapy which helps children develop muscle strength, motor skills, body

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endurance, correct poor body posture, release excess energy to prevent self-harm, and enhance social interaction.

II. METHOD

The research method used in this study is descriptive qualitative method with a case study approach. According to Poerwandari [8], a case study approach can provide comprehensive and integrated understanding for researchers regarding the relationship between various facts and dimensions of the specific case being studied. The research subject is a 5-year-old boy with Autism Spectrum Disorder. The research stages include preparation, implementation, and data collection. Data collection took place from April 4, 2024, to May 7, 2024. Data were gathered using observation, interviews, and documentation techniques. Observations of the child and interviews with parents were conducted at the hospital and therapy locations. Data analysis focused on the child's developmental progress and improvements during therapy.

III. RESULT AND DISCUSSION

A. Result

The subject experiences speech delay. The subject's parents noted that he struggles to communicate with others. When spoken to, he has difficulty forming long sentences and can only utter short words. The subject finds it challenging to adapt to other children. He exhibits poorer social skills compared to peers his age. In daily life, he appears unfocused during interactions, instead being constantly active, moving around. The subject still consumes formula milk and tends to prefer crunchy foods. The parents mentioned no health issues, but the subject has irregular sleep patterns. Medical records indicate his fine motor skills are poorly coordinated, though he manages gross motor skills adequately but less confidently. During interactions, the subject minimally makes eye contact, which, though possible, is inconsistent. Psychological observations in the medical records indicate underdeveloped adaptability and socialization skills for his age, limited independence in current development, and basic verbal abilities limited to short words with difficulty forming complex sentences. The subject understands commands, especially brief ones from parents or close relatives. Intelligence and cognitive abilities cannot be fully assessed due to limitations.

The subject's parents work, limiting their time spent together. They return home in the evening after a full day's work. The subject rarely plays outside or interacts with peers. Limited communication time with others contributes to the subject's lack of improvement in speech before therapy. During hospital observations, the subject showed disinterest in interaction, focusing more on toys and room decorations. According to the parents, the subject said "dad" and "mom" at 11 months but did not add new words or meaningful sentences afterward. At 1 year, the subject struggled to respond unless physically prompted. Eye contact was also infrequent until almost 3 years old. At 2 years old, the subject still had difficulty with two-way interactions and engaged in repetitive behaviors, such as running in circles. At 5 years old, fine motor skills remained challenging, affecting independence in daily activities like buttoning clothes, tying shoes, and using utensils correctly.

After diagnosis, the subject underwent occupational therapy, speech therapy, and group-play therapy. Observations during therapy sessions showed the subject could follow therapist instructions in forming sentences. He actively participated in therapy games and showed improved focus. Therapy effectively enhanced the subject's vocabulary, command comprehension, and interaction with therapists. Progress was consistently positive throughout therapy sessions, indicating improvement in his overall condition.

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B. Discussion

Based on Piaget's theory, children are born with several sensorimotor schemes that provide a framework for their initial interactions with the environment. These sensorimotor schemes determine the early experiences children encounter. Ibda [9] states that events assimilable to existing schemes are the only ones children can respond to, thus defining the limits of their experiences. The subject, a 5-year-old with Autism Spectrum Disorder (ASD), exhibits limited and different sensorimotor schemes in several areas affecting how they respond to their environment and experiences. According to Hannant [10], children with ASD struggle with specific sensorimotor difficulties, including accuracy, speed, and initiation of eye movements; coordination of eye and body movements; and integrating visual information into motor learning. These difficulties significantly impact social learning opportunities for the subject. The subject faces challenges in coordinating eye movements with body movements, affecting their social interaction abilities. Eye contact is inconsistent during communication, and at 1 year old, the subject had difficulty responding when called. When facing social events or challenges, the subject struggles to apply existing schemes to social occurrences. Accommodation processes are necessary to form or modify new schemes so that new concepts can be absorbed by the client. Therapies such as speech therapy, occupational therapy, and group-play therapy can modify these schemes, enabling the subject to develop interactive abilities, improve eye contact consistency, enhance expressive language skills, and improve understanding and responses to emotions, thus broadening the child's experiences.

According to Piaget as cited in Desmita [11], the sensorimotor stage occurs from birth to 2 years old. During this phase, children construct an understanding by coordinating sensory experiences with motor actions. They perceive everything through their senses. The subject struggles to optimize the coordination of sensory experiences and motor movements. At 1 year old, the subject had difficulty responding when called, indicating challenges in coordinating auditory sensory and motor movements. The subject also exhibits hypersensitivity to specific sensory stimuli, which complicates understanding and responding appropriately to sensory stimuli. By age 2, the subject remains uncomfortable with direct eye contact and shows sensitivity to textures, preferring crunchy foods over soft, soupy textures. The subject is also less sensitive to sensory information regarding position, balance, and movement, affecting fine motor skills. This stage serves as a crucial foundation for advancing to the next stage of symbolic thought, enabling language skill development. However, difficulties in motor coordination affect the subject's language development by age 2.

According to Piaget as mentioned in Mu’min [12], the Pre-Operational stage includes the sub-stage of symbolic function occurring from ages 2 to 4. During this sub-stage, language development begins, and the emergence of pretend play exemplifies increased cognitive activity in symbolic thought. However, at age five, the subject still speaks with limited vocabulary and struggles with two-way communication. The subject's expressive language abilities are hindered, making it difficult to express desires or needs. During this phase, children show cognitive activity in dealing with various external factors. However, the subject struggles with external factors, lacking sufficient independence, inability to adapt to new environments, withdrawing from social interactions, and showing reluctance to play with others.

Therapies provided include occupational therapy, speech therapy, and group-play therapy. According to Santoso [13], occupational therapy aims to enhance fine motor skills, strengthen and improve muscle skills in children with autism. Another study by Riza Mahdalena [14] suggests that scissor cutting therapy applied to autistic children can improve their fine motor skills. Speech therapy aims to enhance verbal and non-verbal communication skills in children. Siwi [15] states that speech therapy exercises optimize mouth movements for sound production and pronunciation, aiding

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language comprehension and expression. According to Ray & Cheng [16], group therapy involves collaborative play activities, fostering comfortable and friendly relationships with peers.

IV. CONCLUSION

The subject diagnosed with Mild Autism Spectrum Disorder (ASD) shows delayed speech development, difficulty in reciprocal social interaction/two-way communication, limited expressive language abilities, engaging in repetitive behaviors such as running in circles, fine motor limitations, and specific interest in foods based on texture. Symptoms have been observed since age 1, but the subject's parents initially thought their child was normal and would eventually speak like other children. However, by age 5, the subject still struggles with two-way communication and only speaks in short words. This study indicates that the subject did not undergo optimal developmental stages according to Piaget. Therapy sessions have shown progress towards improvement.

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