RESEARCH ARTICLE

The Linguistic and Social Development of a Moderately Intellectually Disabled Child

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Abstract
Children with intellectual disabilities face difficulties in learning and social adaptation. Intellectual disability is classified into mild, moderate, severe, and very severe levels. Children with moderate intellectual disabilities encounter challenges in acquiring language and social skills, necessitating a focus on life skills training rather than academic education. They experience delays in language acquisition, difficulty in pronunciation, limited use of sentences, and weak comprehension of commands. These issues stem from neurological or environmental factors, requiring therapeutic interventions that include psychological, linguistic, and social programs. Inclusion and gradual training contribute to improving their interaction with society, helping them develop better communication skills and enhance their independence.

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Introduction:

Children with intellectual disabilities represent an important group that requires special understanding regarding their growth and development, particularly in linguistic and social aspects, as well as other areas such as developing cognitive, manual, and sensory-motor skills essential for their daily lives within their families, schools, or during recreational activities with peers in childcare centers or psycho-pedagogical institutions.

Childhood is considered one of the most critical periods of linguistic and social development in an individual's life, during which foundational behaviors and interactions that shape future behavior are established. For children with intellectual disabilities, this development becomes more complex as they face unique challenges requiring a deep understanding of their specific needs.

This article aims to explore the factors influencing the linguistic and social development of these children. How can appropriate support be provided to enhance their abilities and improve their quality of life? Through an analysis of current studies and the introduction of new insights, we seek to highlight the importance of adopting educational and pedagogical strategies to stimulate linguistic and social development in moderately intellectually disabled children, helping them develop adaptive and interactive skills within society.

1-Definition of Intellectual Disability:

It is a condition characterized by significant limitations in intellectual performance and adaptive behavior, affecting an individual's ability to learn and integrate into society. Intellectual disability includes challenges in areas such as thinking, problem-solving, and communication, and it usually manifests during childhood. It is classified based on the severity of symptoms and requires special support to achieve the individual's maximum potential.

Intellectual disability refers to a set of disorders that affect cognitive ability and learning. The main characteristics of intellectual disability include a low level of intelligence and difficulties in adaptive skills, impacting daily life. The causes of intellectual disability can be genetic, environmental, psychological, social, or the result of injuries during pregnancy or childhood. (Mustafa, 1999, p 32)

Intellectual disability is also defined as below-average intellectual performance that occurs concurrently with deficits in two or more areas of adaptive skills, such as communication, self-care, home living, social skills, self-direction, health, and safety, etc. The condition must appear before the age of 18. The "AAMR" classifies intellectual disability based on the nature and level of support an individual needs, which can be intermittent, limited, extensive, or pervasive. (Harris, 2010, p 122)

2-Classifications of Intellectual Disability:

2-1-Mild Intellectual Disability:

This type of intellectual impairment is diagnosed with an IQ score of less than 70, specifically between 50–70. The maximum mental age in this case ranges from 8 to 10 years.

2-2-Moderate Intellectual Disability:

The IQ level of children with moderate intellectual disability ranges between 40–54, with a mental age of 3–8 years. This group is referred to as "trainable children," focusing on daily life skills and self-care skills rather than traditional academic education.

Some studies define it as a state of cognitive impairment with an IQ level between 50 and 70, where individuals in this category often face difficulties in learning and social adaptation. (Muhammad, 2020, pp 145-160)

Other studies describe moderate intellectual disability as follows:

-A condition characterized by a reduction in general intellectual ability, affecting performance in daily life areas.

Intellectual disability refers to a deficiency in mental abilities and adaptive behavior.

General intellectual ability reflects the level of intelligence that impacts learning and adaptation to the environment.

Characteristics of a child with moderate intellectual disability include:

1- Difficulties in learning, requiring more time to understand information and grasp concepts.

2-Limited social skills, often facing challenges in interacting with others and understanding social norms

3- Delayed language skills, with difficulties in expressing themselves or understanding language.

4-Limited mental abilities: IQ scores range between 35 and 50.

5- A need for additional support, including special educational programs and continuous guidance.

6-Repetitive behaviors, often exhibiting repetitive and stereotyped patterns of behavior. (Abdullah, 2018, pp 45-67)

2-3-Severe Intellectual Disability:

Children with severe intellectual disability are referred to as "dependents." Their IQ scores range from 25–39, and their mental age does not exceed three years. In terms of self-care, abilities vary from having no skills at all to

possessing partial skills. Some can attend to personal needs but at a very limited level. Regarding language and communication, receptive language ranges from limited to good, while expressive language is from limited to weak.

2-4-Profound Intellectual Disability:

This group represents less than 1% of all intellectual disability categories, with IQ scores below 20. Individuals in this category are cared for in hospitals or institutions for the intellectually disabled. They face significant difficulties in meeting their daily needs and require intensive nursing care. (Ahmed, 2021)

3-Language Development:

The language development of a moderately intellectually disabled child is directly impacted by reduced cognitive abilities, resulting in slower language acquisition compared to their peers. The most prominent challenges include:

3-1-Delayed Acquisition of Basic Language:

Children with intellectual disabilities may experience delays in starting to speak and in acquiring basic vocabulary. The learning of initial words occurs later than expected. Children with intellectual disabilities, especially those with lower IQ levels, tend to show articulation difficulties. Those with challenges in the physiological aspects of language often exhibit delayed babbling, which further explains their overall delay in expressive language development.

Studies conducted by Stowell and Gamon in 1980 on spontaneous speech produced by a group of children with mild intellectual disabilities revealed that they were able to produce all the phonemes of the English language, indicating no evidence of deviation in this area of language. Furthermore, it was found that the phonological abilities of children with Down syndrome were similar to those of typically developing children at the same linguistic level.In contrast, children with Williams syndrome do not appear to have specific problems with pronunciation. Sankou and Stading (1994), in a study involving a large sample of children with Williams syndrome, found that their articulation was significantly better than that of a group of intellectually delayed children with unspecified disabilities. Consequently, children with intellectual disabilities acquire grammatical knowledge in the same manner and order as typically developing children. However, after the initial stages, noticeable differences begin to emerge in some children from specific categories. For instance, children with Williams syndrome develop a mature grammatical system, while children with Down syndrome face severe limitations in grammatical development. This deficit in children with Down syndrome may be attributed to a specific weakness in the mechanism used for processing linguistic information. (Muhammad, 2018, p 163)

3-2-Difficulty in Using Functional Language:

This refers to the use of language for expressing needs or interacting with others, which may be limited. These children tend to use simple and limited expressions. Functional language skills are among the most important skills that students need to learn. When introducing vocabulary, it is essential to prioritize words that are significant and commonly used in the learner's daily life.For example, teaching expression, whether oral or written, takes a functional approach closely tied to real-life linguistic situations. Students are trained in scenarios similar to those they encounter outside of school. In oral expression, for instance, students practice discussions, storytelling, delivering news, giving speeches, and using expressions for greetings, occasions, and comments, among others...etc

RRonald Taylor and others (2010) suggest that the focus of learning for intellectually disabled individuals should be on functional information and skills necessary to achieve as much independence as possible in living at home and within the community, communication, social and functional aspects, as well as recreation and leisure time.

3-3-Difficulty in Pronunciation:

Children may experience pronunciation problems due to difficulties in controlling the fine motor movements of the mouth, lips, and tongue, which affect their ability to articulate sounds correctly.

Some researchers define pronunciation difficulties as disorders in articulation, voice, speech fluency, delayed language development, or lack of expressive or receptive language development. Children with intellectual disabilities often face such disorders and require special educational therapeutic programs. (Hiba, 2024, p 203)

For a communication difficulty to be classified as a disorder, certain symptoms or signs must be present, including:

A- Errors in the process of sending or receiving messages.

B- If these errors impact the individual's educational or social performance

C - If this difficulty affects the individual's interactions with others, leading to a negative attitude toward them. (Nibras Younis, 2004, pp 215-217)

Among the manifestations of speech disorders in children with moderate mental retardation, we find:

- **Distortion:** Distortion involves pronouncing a sound in a way that approximates the normal sound. It is common among both children and adults and often appears with specific sounds such as "S" and "Sh." For instance, the "S" sound may be pronounced with an extended whistle, or the "Sh" sound might be articulated from the side of the mouth and tongue.

-**Omission:** In this type of speech defect, the child omits a sound from the word, thus pronouncing only part of it. Omission may involve multiple sounds, and consistently doing so can make the child's speech entirely incomprehensible, even to those close to them, such as parents. Omission defects are more common in younger children than older ones and tend to occur more with consonants at the end of words than those at the beginning or middle. These symptoms are also present in children with intellectual disabilities.

- **Substitution:** Substitution involves the child replacing one letter with another, such as reading as replacing the with This type of defect is more common among younger children. Substitution disorders reduce the clarity of the child's speech, making it difficult for others to understand.

- **Addition:** This disorder involves adding an extra sound to a word, making a single sound appear as if it is repeated. (Mukhtar, 2018, p 233)

Among the causes of this disorder we find:

1-Structural Defects in the Speech Apparatus: These include conditions such as cleft palate, cleft lip, and tongue issues (e.g., tongue-tie, size discrepancies, tongue tumors).

2-Neurological Disorders: Such as dysarthria, which occurs in the nerve centers that affect the brain.

B- Brain Injury: Causes interference between consonants and vowels, making it difficult for the individual to articulate individual words or produce longer speech.

H- Medulla Oblongata Injury Damage to the nerves connected to the medulla, which guide the muscles used in speech, such as those controlling tongue and lip movements. Any damage to these nerves results in difficulty producing speech and unclear articulation. (Omar, 1997, p 107)

3- Causes Attributed to Social Environment:

A- Parents' age: The age of the parents plays a significant role in the child's language acquisition and speech clarity. Certain emotional factors might also influence speech development.

B- Family Environment: The family atmosphere, whether characterized by harshness, conflicts, quarrels, or care and other styles, can contribute to speech disorders in both typically developing children and those with different disabilities.

H-Intellectual Disability: The prevalence of speech disorders is significantly higher among intellectually disabled individuals compared to typically developing peers. Disabilities among these individuals affect various levels, including vocabulary, meanings, structures, and pragmatic use of language. Studies show that most intellectually disabled individuals lack consistent patterns in their language representation. (Ali, 2019, p 60)

Other causes include sensory dysfunction, the school environment, imitation, and mimicry. Early babbling and imitation of adults during the first years of life might lead the child to internalize incorrect pronunciations as the proper way to produce sounds.

As for the ways and methods of treating speech disorder, we find:

1- Psychological Therapy: This aims to address the child's emotional issues such as shyness, anxiety, fear, and unconscious conflicts to reduce the emotional impact and psychological tension. Psychological therapy relies on the cooperation of the parents to treat the child well at home through encouragement, kindness, calmness, understanding, and fostering self-confidence. Additionally, the school environment plays an important role, and in some cases, changing the school may be necessary if there are causes related to the school environment that contribute to the problem. (Faisal, 2020, p 105)

2- Speech therapy: This is essential and complementary to psychological therapy and should accompany it in most cases. It involves training the patient through speech relaxation exercises, rhythmic exercises, and speech drills. Gradual training is provided, starting with simple words and situations and moving to more complex ones. The therapy also includes training the speech and hearing apparatus using audio recordings and exercises to strengthen the muscles involved in speech and the overall speech system.

3-Social therapy: This aims to modify the patient's incorrect attitudes related to their problem, such as their attitudes toward their parents and peers. It also involves addressing the surrounding environment, such as proper treatment and providing the child's specific needs.

4- Environmental Therapy: This involves gradually integrating the child with the speech disorder into social activities to help them practice give-and-take interactions and provide opportunities for social interaction. This approach helps develop a well-adjusted personality, overcoming shyness, introversion, and social withdrawal. Additionally, physical therapy is concerned with ensuring the health of the organs responsible for speech and checking the health of the nervous and auditory systems. Treatment may be medical or surgical.

3-4- Short sentences: Children often use simple and short sentences, reflecting a weakness in forming long and complex sentences. (Harris, 2018, p 45)

Mentally delayed individuals take a long time to learn individual words. They find it easier to learn single words but struggle to construct sentences. They imitate simple sentences, and explicit sentences are easier than possessive ones. Additionally, a mentally delayed child at the age of three to four years makes sentence construction mistakes uncommon in typically developing peers, such as mismatching subjects and verbs or confusing pronouns. They also tend to use ready-made verbal templates

The most notable feature of language in mentally delayed individuals is the delay in using sentences and verbal expressions to convey ideas and emotions. Among studies focusing on sentence construction and structure in mentally delayed individuals is the study by "Farouk Omar Sadiq," which found that sentence construction in typical children aligns with their chronological age. However, in mentally delayed individuals, their speech, language, and verbal expression of thoughts appear later. Another study by "John, 1986" indicated that intellectually disabled children acquire linguistic rules and structures at a slower rate compared to their peers. The study recommended teaching intellectually disabled children linguistic and social skills to develop conversational abilities. (Al-Shami, 2020, p 30)

Regarding therapeutic methods, they consist of exercises and training for social adaptation through speaking with others, participating in conversations, and interacting with them. This enables the development of language use and enhances articulation skills, allowing them to use longer sentences to express emotions or needs.

4-Limited understanding of commands and instructions:

Children may face difficulty understanding complex instructions and prefer short and clear ones. Children with intellectual disabilities, whether moderate or severe, experience such difficulties, meaning they struggle with comprehension and applying instructions during language development. They may also have delays in understanding words and phrases, impacting their interactions with those around them.

This limited understanding can manifest in an inability to follow simple instructions or respond correctly to questions, necessitating special teaching methods to support their linguistic and communicative skill development, such as:

1- Repetitive teaching: Repeating words and phrases helps reinforce linguistic memory (a group of researchers).

2-Using images and visual aids: Pictures help enhance understanding and communication.

3-Interactive play: Activities that enhance the child's ability to express and communicate.

4-Non-verbal communication: Gestures and signals facilitate interaction.

5-Individualized support: Providing help tailored to the child's specific needs.

6- Encouraging sentence formation and clear speech.

7-Providing regular opportunities for communication and conversation.

8-Praising and encouraging the child when using language correctly and effectively. (Iman, 2018, p 150)

5-Social development:

Intellectual disabilities significantly affect a child's social skills, as evident in several aspects:

5-1-Limited social interaction: Such children often prefer solitary play or playing with a few individuals and struggle to form and maintain friendships.

To overcome this difficulty, some studies have demonstrated the effect of using motor game programs and social and mixed games in developing social interaction among children, especially the mentally disabled group with mild disabilities who have withdrawal behavior (isolation), by providing conditions that are close to the natural environment that is supposed to That the child develops a habit in it gradually to reintegrate him into his natural, not artificial, environment by providing opportunities for him to meet his normal peers for regular periods that allow him to reacquaint himself and interact as a first step. (Okasha, 2015, p 45)

5-2-Difficulty understanding social cues: Mentally retarded children show limited understanding of social signals such as facial expressions and body language, which makes them less responsive to social situations. They also face difficulties in interacting with their peers, and this difficulty is considered one of the main challenges in social development.

Overcoming this issue involves teaching and developing social skills, especially for those with mild to moderate disabilities, including:

5-3- Starting early: Teach social skills from an early age, encouraging the child to play with others and share belongings.

5-4- Modeling behavior: Children learn many skills by observing and imitating their parents' actions. Thus, parents should act appropriately in speech and behavior in front of their children.

5-5-Treat your child with respect: Treating the child respectfully and valuing them within the household fosters self-confidence and helps develop social skills, which translate into interactions and relationships with others.

5-6-Providing opportunities for social skills training: This is done through social activities and tasks given to children with mental retardation, for example: within a therapeutic workshop, organizing group games, role-playing, etc.

5-7-Praising the child's efforts: The therapist or teacher should praise the child's efforts while performing a specific activity instead of focusing on the mistakes he made. This encourages him to learn and develop his skills better.

5-8-Difficulty adapting to group settings: Children with moderate intellectual disabilities often find it hard to adjust to group environments, such as cooperative play or participating in group activities. These difficulties, including understanding social cues, weak communication skills, or challenges expressing emotions, affect their ability to form friendships and integrate into group activities. (Awad, 2006, pp 59-67)

Among the therapeutic methods for this weakness or difficulty we find:

-Behavioral therapy:

1-It aims to reinforce positive behaviors through reinforcement and reward.

2- Social skills training includes training in social skills, teaching the child how to interact appropriately with others.

-Play therapy:

-It helps the child express his feelings and develop his interactive skills through play.

-Therapeutic groups:

Provides a safe environment for interacting with other children and learning teamwork.

5-9-Dependence on others: Children with intellectual disabilities often exhibit weak self-reliance skills and tend to depend on others for assistance with daily tasks, including self-care.

5-10- Peer lagging: These children may struggle to respond to peer pressure, which can sometimes lead to isolation and lack of participation in social activities.

6- Educational and pedagogical strategies to stimulate linguistic and social development:

Educational programs play a crucial role in supporting the linguistic and social development of children with intellectual disabilities through:

-Functional language training: Training children to use language in real-life situations, such as expressing basic needs and engaging in simple social interactions.

-Using Simplified Language programs: Programs that use picture cards, auditory, and visual aids to provide significant support for children with language difficulties.

-Enhancing social interaction: Providing an educational environment that encourages social interaction through group activities requiring interaction with others.

-Specialized education: Implementing curricula focused on developing self-reliance skills and social interaction abilities. (Cichetti, 2021, pp 263-277)

Conclusion

In conclusion, this research on the linguistic and social development of moderately intellectually disabled children highlights the importance of tailored care and appropriate guidance.

Interaction with the surrounding environment, family support, and specialized educational programs play a crucial role in enhancing their linguistic and social skills. By providing a language-rich environment, children can make significant progress in self-expression and understanding others. Enhancing social skills through social activities and peer interactions builds their confidence and improves their ability to adapt to society.

Therefore, it is essential to develop comprehensive educational strategies that consider the needs of these children, contributing to improving their quality of life and enhancing their chances of social integration. Investing in their education and skill development is an investment in their future, positively impacting society as a whole and empowering them to reach their full potential.

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