

Literature Review: The Impact of Children with Multiple Disabilities in Their Life

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ABSTRACT

This study reviews previous literature to determine how multiple disabilities affect children. It also examines key components of support services and the education system. Children with various disabilities face complex developmental challenges in cognitive, communication, social, and emotional areas. This study identified four key impacts from 28 scientific articles (2020–2025) using a systematic literature review approach. These four impacts are as follows: “Psychological and Emotional”; “Social and Participation”; “Family and Support Systems,”; and “Education and Services.” The findings suggest that addressing multiple disabilities requires an integrated, personalized, and family-based intervention approach. Furthermore, addressing multiple disabilities requires policies that enable broad social participation and support tailored to children’s complex needs.

Keywords: *Multiple Disabilities, Multiple Barriers, Literature Review, Educational Services, Social Impact.*

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INTRODUCTION

Every child deserves optimal support in their growth and development. However, in reality, some conditions prevent some children from receiving equal opportunities, such as children with multiple disabilities. Having more than one disability simultaneously has a complex impact on their development, including social communication, psychological, emotional, intellectual, physical motor skills, and even on those around them. Therefore, children with multiple disabilities face significantly greater challenges than children in general.

Beyond impacting their growth and development, these impacts also impact their daily lives. For example, the impact on social communication can make it difficult for them to interact socially. Furthermore, the impact on the intellectual development of children with multiple disabilities can cause difficulties or delays in understanding concepts when learning. Finally, the impact of multiple disabilities is not only felt by the individual; their immediate family can also experience social pressure and emotional burdens.

Limited public understanding of the impacts experienced by children with multiple disabilities often leads them to be viewed as individuals with disabilities, leading to social discrimination. This may also be due to the lack of research in Indonesia addressing children with multiple disabilities, resulting in limited understanding and tailoring support for multiple disabilities. This situation presents a challenge in designing educational services, educational strategies, and educational interventions appropriate for children with multiple disabilities, which are undoubtedly more complex than those for children with a single disability (Rudiyati, Sukinah, & Rahmawati, 2019).

Many educational services do not fully understand the unique characteristics of students with multiple disabilities, resulting in support not always aligned with their needs (Turnbull et al., 2013). The fact that support provided for multiple disabilities does not align with the child's needs profile is the primary reference point for writing this article. The author understands the importance of understanding children with multiple disabilities better by understanding their characteristics and the impacts they experience through a literature review. This goal is expected to educate and create appropriate service and intervention programs for children with multiple disabilities.

METHOD

A literature review, also often called a literature review, is the method we chose as researchers to discuss, review, and analyze studies from several journals addressing the impact of multiple disabilities. A literature review is highly effective for an in-depth evaluation of theories, concepts, and findings from previous research, providing a foundation and context for the current research. The primary data for this study are secondary sources, including scientific articles, national and international journals, and other relevant publications on multiple disabilities.

- 1) **Databases Used:** Google Scholar, ScienceDirect, ERIC, and institutional repositories.
- 2) **Publication Timeframe:** The reviewed research included publications between 2020 and 2025 to ensure the relevance and timeliness of the findings.

Data Collection Procedure

- 1) **Keyword Identification:** Articles were searched using a combination of key keywords in Indonesian and English, including: "Multiple Disabilities," "Multiple Barriers," "Impact of Multiple Disabilities," "Multiple Disabilities Impact," "Profound Intellectual and Multiple Disabilities (PIMD), and Polyhandicap."
- 2) **Inclusion and Exclusion Criteria:** Articles explicitly discussing the impact, intervention, or services for individuals with multiple or multiple disabilities; having accessible abstracts and full text; and using a transparent research methodology (Qualitative, Quantitative, Mixed Methods, or Policy Analysis).
- 3) **Article Selection:** Identified articles were then screened based on the suitability of their titles and abstracts. Articles that met the criteria were included in the literature review table. A total of 28 articles were successfully synthesized in this study.

- a) **Inclusion:** Articles that explicitly discuss the impact, interventions, or services for individuals with multiple or multiple disabilities; have accessible abstracts and full text; and use a transparent research methodology (Qualitative, Quantitative, Mixed Methods, or Policy Analysis).
- b) **Exclusion:** Articles that only discussed a single disability or did not specifically address the impact.

Data Analysis Techniques

- 1) **Data Extraction:** All key information from the 28 articles was extracted and recorded in the appendix table, including: Authors, Titles, Research Methods, and Research Results.
- 2) **Thematic Coding:** The research findings from each article were categorized and grouped based on key impact themes that emerged, such as:
 - a) Physical/Motor Impacts
 - b) Communication and Social Impacts
 - c) Cognitive/Learning Impacts
 - d) Family and Service Impacts
- 3) **Synthesis and Interpretation:** Each theme was then synthesized to identify patterns, similarities, and differences in findings across studies. The results of this synthesis were used to formulate findings and conclusions related to the Impact of Disability.
- 4) This analysis will be elaborated in detail in the discussion section.

FINDING AND DISCUSSION

Table 1. Multiple Disabilities and Their Impact on Individual Life Outcomes

No	Author	Title	Research Method	Research Result
1.	Suryanti, N., & Nurjannah, N. (2024).	Rehabilitation Intervention For Neglected Cases of Multiple Disabilities in Cerebral Palsy & Mental Retardation	Qualitative (Case Study)	Research reveals that the Sayap Ibu Panti 2 Yogyakarta Foundation has successfully provided excellent social rehabilitation interventions for children with multiple disabilities, particularly those with cerebral palsy and intellectual disability. In addition to presenting the research findings conducted at the Sayap Ibu Panti 2 Yogyakarta Foundation, this article explains the impact of multiple disabilities, including physical and motoric, psychological, social, functional independence, and health impacts.
2.	Sujoko, A., Putra, D. A., & Natalina, D. S. (2025).	Meningkatkan Kesejahteraan Penyandang Disabilitas	Policy Brief	The primary focus of this article is on efforts and appropriate policy recommendations to improve the welfare of people with disabilities in Tulungagung Regency, using Amartya Sen's Capability Theory as the basis for analysis. This is due to the low welfare of people with disabilities in Tulungagung. Consequently, the perceived impacts of multiple disabilities include economic, social,

				health, and structural effects.
3.	Kibayasi, F. S., & Nihuka, K. A. (2025)	Impact of Augmentative and Alternative Communication Devices in Promoting Reading Skills in Pupils with Multiple Disabilities in Primary Schools in Morogoro Municipality, Tanzania	Quantitative & Qualitative (Mixed Methods)	This research reveals that the use of Augmentative and Alternative Communication (AAC) assistive technologies, such as speech-generating devices and communication boards, has a positive impact on the Reading abilities of students with multiple disabilities. Therefore, Augmentative and Alternative Communication (AAC) is an essential tool because it significantly affects Reading development in inclusive education. This study also examined the impact of multiple disabilities, namely that people with various disabilities experience complex challenges involving simultaneous sensory, physical, and cognitive impairments, which makes it difficult for them to engage in literacy activities.

4.	Maulidina et al. (2024)	Family-Sourced Early Intervention Programs to Optimize Communication Development of Children with Multiple Disabilities	Design & Development Research	This discussion highlights the importance of early, family-based intervention to optimize communication development in children with multiple disabilities. This study uncovered several findings, including issues related to communication in children with various disabilities, parental ignorance, and the challenges teachers face in assisting children with multiple disabilities. Furthermore, the researchers developed three family intervention programs. This article also explains the impact of various disabilities, including communication disorders, limitations in independence and social interactions, developmental delays, and the psychological effects on families.
5.	Taboer et al. (2024)	Identifikasi Siswa Dengan Disabilitas Majemuk Di Sekolah Luar Biasa	Deskriptive Qualitative	This study identified 43 students with multiple disabilities across 10 different special education schools. Most of them had two types of disabilities. However, they were served with a single disability education service. This situation affects educational services and will hinder students' optimal

development.

6.	Zakiah, Z., & Hermanto. (2022)	Kebutuhan Guru Dan Orang Tua Dalam Layanan Pendidikan Bagi Anak Dengan Hambatan Majemuk Di Masa Pandemi Covid-19	Deskriptive Qualitative	This study identified two fundamental needs for teachers and parents of children with multiple disabilities during COVID-19: teacher home visits and curriculum adaptations to support both online and offline learning. This study emphasized the importance of collaboration between parents and teachers. It highlighted the challenges faced by parents, particularly those facing limited economic capacity, which impacts their ability to create a conducive learning environment at home. This, in turn, hinders children with multiple disabilities in their learning and basic development, reduces motivation to learn, and results in a lack of optimal stimulation and less support from the school. The impact of COVID-19 on children with multiple disabilities not only impacts the educational process but also impacts the development and motivation of these children with various disabilities.
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7.	Wardani, (2025)	D.	Pendekatan Komunikasi Guru Kepada Siswa Tunanetra Majemuk Dalam Proses Pembelajaran Di Yayasan Pendidikan Dwituna Harapan Baru	Deskriptive Qualitative	This study reveals that communication conducted by teachers in the learning process for MDVI or Multiple Visually Impaired children at the Harapan Baru Dwituna Education Foundation is adapted to the conditions and needs of each student. Teachers often create five main elements in their communication approach, namely openness, empathy, support, a positive learning environment, and equality. This article explains the impact of multiple disabilities reviewed, including the impact on aspects of communication and learning, emotional and social, physical-health, and so on.
8.	Diani, E., & Yunarti, (2024)	S.	Family Resilience For People With Multiple Disabilities In Nagari Baringin (Ketahanan Keluarga Bagi Penyandang Disabilitas Ganda Di Nagari Baringin)	Qualitative	This study reveals that teachers' communication during the learning process for MDVI (Multiple Visually Impaired) children at the Harapan Baru Dwituna Education Foundation is tailored to each student's specific needs and conditions. Teachers often incorporate five main elements into their communication approach: openness, empathy, support, a positive

				learning environment, and equality. This article explains the impact of multiple disabilities, including communication and learning, emotional and social, and physical health.
9.	Maulidina et al. (2024)	Pola Komunikasi Siswa Dengan Hambatan Majemuk	Qualitative	This study involved two children with multiple disabilities, aged 8 and 10, who were still at the nonverbal communication stage. They interacted through crying, body movements, and simple gestures and were not yet able to communicate verbally. This disability impacted their social, emotional, and independence skills, making it difficult for them to participate in their surroundings. The lack of stimulation at home and at school exacerbated their condition, leading to feelings of continued isolation.
10.	Pujiastuti, R., & Retnosari, I, E. (2023)	DAMPAK DEFISIT UNSUR KALIMAT PADA FUNGSI PRAGMATIS TINDAK TUTUR ANAK DISABILITAS GANDA (Impact Of Deficit Elements Of Sentence There Is	Qualitative	Children with multiple disabilities, including hearing and learning disabilities, have difficulty understanding and producing complete sentences. In this study, sentences spoken by children with multiple disabilities were generally

		A Pragmatic Function Speech Act Of Children With Multiple Disabilities)		single words (holophrases). The resulting lack of sentence elements, such as subjects and predicates, makes it difficult for the other person to understand the intended meaning of the utterance. As a result, misunderstandings often occur in communication, and cognitive and hearing limitations also contribute to delayed language development.
11.	Nadya, et al (2024).	<i>SELF-ACCEPTANCE OF SINGLE MOTHERS WITH MULTIPLE DISABILITIES (Case Study In Lakarsantri, Surabaya)</i>	Qualitative	This study describes how children with multiple disabilities place significant physical, mental, and economic pressure on single mothers, who must be both caregivers and breadwinners without the help of a partner and with little social support, which can make the process of self-acceptance even more difficult. This study clearly shows how the process of self-acceptance for single mothers goes through five emotional stages: denial, depression, anger, bargaining, and acceptance. Initially, mothers experience denial, guilt, and despair, but gradually begin to understand their children's condition after receiving support, seeking

			information, and interacting with other families who have had similar experiences. Nevertheless, the mothers' emotions remain volatile when faced with new challenges in their children's development.
12.	Habibah, et al(2024)	Identifikasi Dan Asesmen Anak Dengan Hambatan Lebih Dari Satu Di Salah Satu Slb Daerah Jakarta Pada Jenjang Sdlb Dan Smp/b	Qualitative
			Based on this study, it is clear that multiple disabilities have a broad impact on various aspects of child development. First, in terms of communication, children with multiple disabilities often have difficulty understanding instructions and establishing social interactions. Physical and motor impairments limit their mobility and independence in daily activities. Cognitively, many children have difficulty focusing, are slow to understand new concepts, and require repetition in learning. The social-emotional impact is also evident in children's tendency to become easily frustrated, withdrawn, and dependent on others.

13. Melanie Nind & Iva Strnadová (2020)	Changes in the Lives of People with Profound Intellectual and Multiple Disabilities	Qualitative	<p>13. This study shows that changes in the lives of people with multiple disabilities are greatly influenced by their environment, service decisions, and the quality of their relationships with those around them. Researchers found that even small changes such as adjustments to lighting, sound, daily routines, or the way staff provide support can have a major impact on their comfort, happiness, and level of responsiveness.</p> <p>Individuals with multiple disabilities are highly sensitive to the quality of human interaction; when they interact with people who are patient, consistent, and understand their nonverbal communication, they show signs of comfort such as smiling, relaxing their bodies, or making more frequent eye contact. Conversely, negative changes such as frequent staff turnover, an unstable environment, or impersonal services can make them more anxious, less responsive, and prone to stress. This research confirms that the lives of individuals with multiple</p>
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				disabilities are highly dependent on the quality of support they receive, the stability of their environment, and attentive social relationships.
14.	Kasper Kruithof et al. (2021)	Siblings' and parents' perspectives on the future care for their family member with profound intellectual and multiple disabilities	Qualitative - Interview	This study explores how parents and siblings view their future roles in caring for family members with severe disabilities (multiple impairments). From interviews with parents and siblings, many siblings are ready and willing to take on more caregiving responsibilities. However, not everything is discussed directly within the family; some siblings feel unprepared because their parents have never explained their future expectations in detail. On the parents' side, there is a fear that the burden of care may be too heavy for siblings, but, in general, there is a shared set of expectations despite a lack of open communication. The results of the study show that clearer, more explicit family communication can help siblings feel better prepared to face future responsibilities and reduce potential conflicts or uncertainties.

15. S. Nijs et al. (2023)	Operationalisation of self-determination of persons with profound intellectual and multiple disabilities: A Delphi study	Mixed	<p>In this study, researchers worked with experts from various countries to formulate what “self-determination” (independence in making choices) actually means for people with multiple disabilities who are highly dependent on support. As a result, the experts agreed on several important points: first, that despite having high support needs, people with multiple disabilities can live their lives with elements of self-determination; second, that the social-environmental aspect is essential, meaning that independence cannot be viewed solely from the individual’s perspective, but from how the environment (family, supporters) provides space and support; third, experts formulated concrete indicators such as how their choices are expressed (even if non-verbally), access to supported decision-making, and how their preferences can be interpreted and respected. In other words, this research produced a conceptual framework that researchers or</p>
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				practitioners can use to assess and support the self-determination of people with multiple disabilities more systematically.
16.	Melissa Bremmer, Carolien Hermans & Vincent Lamers (2021)	The Charmed Dyad: Multimodal music lessons for pupils with severe or multiple disabilities	Qualitative	The results of this study are very interesting because they show that multimodal music learning, namely music combined with other stimuli such as touch (tactile), body movement, and visual elements, can pave the way for understanding and participation in music for students with severe or multiple disabilities. Through case studies with music teachers and social workers, the researchers observed that students could perceive musical structures (e.g., rhythmic patterns), emotional expressions in music, and the “life” of the music itself, even though they may not be able to speak or show conventional responses. Teachers used in-depth video reflection to adjust their teaching methods, and used an analytical framework (narrativity, sociality, materiality, embodiment) from general music research, but then

			modified it to be relevant to the context of severe disabilities. The result: multimodal music is not just a “tool for entertainment,” but a meaningful medium that enables the formation of meaning, social relationships, and self-expression for students who are highly vulnerable and unconventional in their communication.
17.	H. Tanabe et al. (2024)	A concept for emotion recognition systems for children with hambatan majemuk based on AI using physiological & motion signals	Quantitative This study developed an artificial intelligence (AI)-based system to recognize the emotions of children with multiple disabilities using physiological signals (such as heart rate intervals) and movement signals (e.g., eyes, body) captured by lightweight sensors. The results of the experiment show that the developed system, using a random forest algorithm, is able to distinguish between “negative emotion” and “non-negative” conditions with an average accuracy of around 70.4% (± 6.1%), which is much better than the assessment by strangers who do not know the child (around 48.5% ± 5.0%). In addition, a significant correlation was found between heart rate interval signals and

					emotional states, indicating that this system can “read” the internal state of children that is difficult to express verbally. The researchers concluded that this concept is very useful as an emotional communication aid: it can help caregivers and supporters better understand what children with multiple disabilities may be feeling when they cannot express it verbally, although they also emphasized the need for further testing and ethical considerations (privacy, data use).
18.	Bea Maes, Anneleen Penne, Katrijn Vastmans & Michael Arthur-Kelly (2020)	Inclusion and Participation of Students with Profound Intellectual and Multiple Disabilities	and	Qualitative	In this chapter, the authors present an ecological model that shows how factors at various levels—individual (abilities, health, communication), environmental (teachers, peers, physical classroom structure), and systemic (school policies, resources)—are all interrelated in determining the extent to which children with multiple disabilities can participate and feel included. Based on observations and vignettes, they found that physical presence in the classroom (being present

alongside regular students) is not enough: to truly “participate,” students must be given meaningful activities, access to communication, and supportive interpersonal relationships. They highlight real barriers: low expectations from teachers, lack of training in communication support, and infrastructure limitations. However, when schools committed to building collaborative teams (teachers, therapists, assistants) and creating flexible environments, students with multiple disabilities showed signs of participation, including responding to materials, engaging in social interaction, and demonstrating emotional engagement. The authors encourage educators to view inclusion as a dynamic, collaborative process rather than simply “placing” students in regular classrooms.

19. Kasper Kruithof, Erik Olsman, Appolonia Nieuwenhuijse & Dick Willems (2022)	Parents' views on medical decisions related to life and death for their ageing child with hambatan majemuk: a qualitative study	Qualitative	This study reveals parents' perspectives in making tough medical decisions regarding their aging children with significant needs. From in-depth interviews, parents who believe their children's quality of life (QoL) is good often state that their children "deserve the same care as other people without disabilities." They want medical options not to be limited solely because of disability, and hope that doctors will value their opinions as the people who understand their children best. Conversely, some parents refuse life-prolonging treatments because they feel that such interventions could hurt their child's QoL, especially if the treatment makes life more difficult or painful.
20. Clare Palmer & Jan Walmsley (2020)	Are People with Profound and Multiple Learning Disabilities and Their Families Welcome in the Wider Learning Disability Community?	Qualitative	20. Clare Palmer (parent) and Jan Walmsley (academic) reflected on how the broader disability community often fails to include people with PMLD (Profound and Multiple Learning Disabilities) and their families in the self-advocacy movement. They convey that despite a strong disability advocacy movement, many of these

activities are dominated by people who can speak or use specific communication tools, leaving those who are highly dependent on support and lack full verbal ability feeling marginalized. Palmer shares her personal experience as the parent of her daughter, Elinor, and shows that traditional advocacy support is not always relevant or accessible to them. They proposed that the disability advocacy community needs to expand the ways it “hears voices”: not only by giving space to individuals who can verbally express their opinions, but also through non-verbal communication, families, and more inclusive representation. They also suggested that advocacy organizational structures be redesigned to be more welcoming to families and individuals with complex needs, and that advocacy strategies be developed that are more sensitive to the uniqueness of each family and individual.

21	Polyhandicap / profound intellectual multiple disabilities: concept and definition of a highly specific public health issue	Rousseau, Winance & Baumstarck (2023)	Qualitative	Multiple disabilities = a combination of severe motor impairments + profound intellectual disabilities resulting from early brain damage; requires multidisciplinary services.
22	PicTalky: Augmentative and Alternative Communication Software for Language Developmental Disabilities	Park, Jang, Lee, Seo, Yang & Lim (2021)	Qualitative	Great potential to support communication for children with complex needs; requires testing for effectiveness and adaptation to local culture/language.
23	Rehabilitation or Leisure? Physical exercise in the practice of physiotherapy with young persons with profound intellectual and multiple disabilities	Eriksson, S. & Saukkonen, E. (2021)	Qualitative	Physical activities for people with multiple disabilities are often positioned as medical rehabilitation rather than leisure. A paradigm shift towards an inclusive and rights-based approach to participation is needed.
24	Designing education for learners with profound intellectual and multiple disabilities	Ware, J. et al. (Oxford Research Encyclopedia, 2020)	Qualitative	Education for students with multiple disabilities should focus on responsive interaction, multisensory approaches, and individual adaptation. Empirical evidence is still limited, but the direction of practice supports personalization.

25	Zandbelt, L.M.	<i>Health Problems in Children with Profound Intellectual and Multiple Disabilities</i>	Quantitative	25. The results of this study indicate that children with severe and multiple intellectual disabilities (multiple impairments) face very complex and diverse health problems. In an analysis of 22 studies (totaling 894 children), it was found that the most common health conditions experienced were epilepsy, respiratory tract infections, difficulty eating or dysphagia, gastroesophageal reflux disease (GERD), scoliosis, and vision problems. These issues do not occur in isolation, but often co-occur, increasing the vulnerability of children and the need for intensive care at all times. The study also highlights that differences in the definition of multiple disabilities across studies make it difficult to compare prevalence data. Still, the general pattern remains clear: children with numerous disabilities require consistent medical support from various disciplines. Furthermore, this study shows that many of the health problems they face arise very early in life and can worsen if integrated
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			<p>interventions are not implemented. Overall, these findings confirm that health support for children with multiple disabilities must be provided through a holistic and sustainable approach.</p>
26 Geuze, L.	<p><i>Caring for Children with Profound and Multiple Disabilities</i></p>	Qualitative	<p>The results of this study provide an in-depth picture of the experiences of parents caring for children with multiple disabilities, showing that parenting in these situations requires a high level of physical, emotional, and mental capacity. Parents stated they had to become “experts” on their own children because many of their children’s needs were difficult for professionals to identify or understand. They learn to recognize subtle signs of pain, discomfort, fatigue, or happiness. This knowledge is gained from deep daily experience, not through formal education. In addition, the study’s results indicate that parents often face administrative challenges, lack institutional support, and feel their insights are not valued when decisions are made in health services. Parents also describe feelings of social</p>

			alienation and prolonged fatigue, but also demonstrate a powerful emotional bond with their children. These findings suggest that family well-being and service effectiveness are closely related to the extent to which professionals value and integrate parents' knowledge.
27	Flink, A.R	<i>Following Children with Severe/Profound Intellectual & Multiple Disabilities and Their Mothers Through a Communication Intervention</i>	Qualitative The results of this study show that the signs of dementia in individuals with severe or profound intellectual disabilities (and multiple disabilities) (SPI(M)D) differ from the characteristics of dementia seen in the general population and are usually more difficult to identify. Respondents observed that the most noticeable sign was a decline in the ability to perform activities of daily living (ADL), such as eating, dressing, and basic mobility. In addition, changes in behavior and psychological conditions such as increased irritability, anxiety, apathy, or greater emotional dependence emerged as early signals. For individuals who cannot speak and are unable to walk, assessing cognitive symptoms is very difficult

to do directly, so other indicators such as sleep patterns, reactions to stimuli, or changes in eating habits become very important. This study shows that caregivers and professionals often face difficulties in determining whether the changes that occur are part of the disability itself or are signs of developing dementia. These findings highlight the importance of having screening tools specifically designed for the SPI(M)D group so that early diagnosis can be made more accurately.

28 Wissing, M. B. G., van der Helm, P., & Evenhuis, H. M. *Dementia in People with Severe/Profound Intellectual (and Multiple) Disabilities. Journal of Intellectual & Developmental Disability.*

28. This study shows that parents have tacit knowledge, which is intuitive and difficult to explain in words, that is very important for understanding the condition of children with multiple disabilities. They are able to detect small changes in their children's facial expressions, voices, or movements as signs that their children are sick, uncomfortable, or have specific needs. This knowledge is not acquired from books or professional interventions, but rather from long and intense interactions. The results of this study show that this

tacit knowledge is often a key element for health workers in understanding the child's condition more accurately; however, parents often feel that their understanding is not given due recognition in the decision-making process regarding care. This study emphasizes that the effectiveness of health and education services for children with multiple disabilities can be improved if professionals value, acknowledge, and collaborate with parents as the primary source of information regarding their children's specific needs.

RESEARCH RESULT

1. Psychological and Emotional Impact

Referring to the discussions in Journals 4, 8, 9, and 17, it is clear that the psychological and emotional impacts on individuals with multiple disabilities cannot be separated but are highly dependent on the quality of support from the surrounding environment, the type of intervention received, and the individual's opportunities to build independence. These four journals demonstrate that the emotional well-being of children and individuals with multiple disabilities is highly dependent on supportive relationships, both within the family, rehabilitation services, and the broader social system. As explained by Maulidina et al. (2024) in Journal 4, family involvement in early intervention acts as a protective factor for children's psychological development. A secure relationship between children and parents can reduce anxiety, increase self-confidence, and help regulate emotions stably. Consistent and responsive family interactions not only strengthen children's communication skills but also foster a sense of security and self-acceptance from an early age. These findings suggest that children's emotional well-being develops in tandem with the quality of relationships formed in their immediate environment.

In contrast to its focus on the relationship between children and families, Journal 8 (Sujoko et al., 2025) emphasizes the psychological and emotional aspects of individuals with disabilities within a broader social welfare framework. Stigma, discrimination, and limited access to services are perceived as psychological pressures that can lead to decreased self-esteem and feelings of hopelessness. Thus, emotional well-being is influenced not only by factors within the individual but also by social structures, policies, and societal attitudes toward disability.

From a rehabilitation perspective, Journal 9 (Suryati & Nurjannah, 2024) shows that a lack of attention and services for children with multiple disabilities can lead to delayed emotional development, difficulty establishing social relationships, and the emergence of behavioral problems. However, through well-planned and sustained rehabilitation programs, improvements in children's emotional stability, affective responses, and social interactions are observed. These findings confirm that negative psychological impacts are not a fixed condition but can be mitigated through appropriate interventions.

On the other hand, Journal 17 highlights the role of assistive technology in supporting the psychological well-being of individuals with disabilities. The use of technology not only supports daily activities but also fosters self-esteem, optimism, and a more positive self-identity. The opportunity to act more independently can reduce emotional dependence and increase social participation. Overall, these four journals show that the psychological and emotional aspects of individuals with multiple disabilities are formed through a dynamic interaction between family support, social systems, rehabilitative interventions, and access to assistive technology.

2. Social Impact and Participation

In the discussion of journals 4, 8, 9, 13, 16, 22, and 23, one similarity can be found in the discussions of all seven journals, which discuss one important aspect of children with multiple disabilities: the social impact and participation. For example, in journals no. 9 and no. 4, the authors explain that unaddressed communication deficiencies cause the most significant social impact for children with multiple disabilities. As a result, children withdraw from social interactions because the environment fails to respond to their nonverbal signals. Maulidina et al. (2024) emphasize in Journal No. 9 that children tend to build "their own world" and fail to achieve social independence if there is no appropriate communication stimulation. Journal No. 4 states that the child's inability to participate is attributed to their inability to speak. This opinion aligns with this. These journals criticize families and schools, often indirectly. However, Journal No. 4 emphasizes the importance of intervention programs starting at home, and Journal No. 9 discusses the student's specific communication profile in school.

Furthermore, Journals No. 23 and No. 13 criticized the quality of children's social participation, noting that medical perspectives have hampered it. According to Eriksson and Saukkonen (2021), in Journal No. 23, children with disabilities often engage in

physical activity only as a medical rehabilitation measure to improve their bodily functions. As a result, their social rights to enjoy leisure time (holidays) and the joys of childhood are neglected. According to Nind and Strnadová (2020) in Journal No. 13, participation must reach the stage of belonging, where children are valued as equal citizens in their communities and not merely physically present. The arguments of these two journals are crucial because they shift the definition of social impact: from "children can function physically" to "children feel accepted and happy" in their social environment.

In an effort to facilitate more active participation, Journals No. 22 and No. 16 note the possibility of children with severe disabilities participating in social interactions. Park et al. (2022) in Journal No. 22 provide evidence that AI-based augmentative and alternative (AAC) technology (PicTalky), which allows children to express their intentions through pictograms, can reduce frustration and increase social engagement, thus addressing social inequalities. On the other hand, Bremmer et al. (2021) in Journal No. 16 used a more humanistic approach through music and touch to create a charmed dyad, a condition in which the child and teacher connect emotionally and socially. Although their approaches differ—one based on high technology and the other on human interaction—both agree that social participation can only occur if there is an intermediary medium accessible to the child.

Finally, as demonstrated in Journal Nos. 8 and 4, the family is the smallest social institution responsible for children's social well-being. According to Diani and Yunarti (2024), in Journal No. 8, family social resilience, including family and community support, is the foundation that enables people with disabilities, both children and adults, to interact confidently with the outside world. The findings in Journal No. 4 suggest that the family's inability to address the child's condition will lead to system failure. One criticism of this synthesis is that, because it focuses only on children, social interventions are often delayed. This occurs even though strengthening the family environment is crucial for children's social participation.

3. Cognitive, Communication, and Independence Impacts

Based on the discussions in Journals 3, 4, 7, 9, 10, 15, and 17, it is clear that cognitive, communication, and independence are three interrelated and inseparable dimensions in individuals with multiple disabilities. Challenges in one aspect will directly impact the others; therefore, partial treatment risks hindering the child's overall development.

From a cognitive perspective, Journal 3 (Maulidina et al., 2024) and Journal 10 (Taboer et al., 2024) reveal that limitations in cognitive function impact a child's ability to understand symbols, interpret messages, and respond to environmental stimuli. Clear thinking patterns and the need for repetition are important characteristics in the learning and communication processes of children with multiple disabilities. These findings emphasize that accurate recognition of cognitive abilities is crucial for determining appropriate educational services and interventions.

The rehabilitation perspective presented in Journal 9 reinforces these findings by showing that children with cerebral palsy and intellectual disabilities, who have experienced neglect, tend to experience decreased attention and responsiveness to their environment. However, with regular rehabilitation, children show progress in understanding simple instructions and participating in daily activities. This indicates that appropriate stimulation still provides opportunities for cognitive development, even under minimal conditions.

In terms of communication, Journal 3 and Journal 7 indicate that cognitive limitations influence low verbal and nonverbal communication skills. Children rely heavily on facial expressions, body movements, and support from adults to convey their meaning. Pujiastuti and Retnosari (2023) in Journal 7 emphasize that limitations in sentence structure impact the pragmatic functions of communication, such as conveying meaning, maintaining the topic of a conversation, and adapting communication to the listener. This condition directly impacts the quality of children's social interactions.

Unlike the descriptive approach mentioned above, Journal 4 emphasizes the importance of early, family-based intervention to improve children's communication. Family participation has been shown to increase the frequency and function of communication, while strengthening children's cognitive understanding through meaningful interactions within the home environment. These findings demonstrate that communication is not simply an individual skill, but also the result of ongoing social stimulation.

Along with advances in cognition and communication, elements of independence are discussed in Journals 9, 15, and 17 from a broader perspective. Journal 9 indicates that improved thinking and communication skills influence children's functional independence in daily activities. Meanwhile, Nijs and colleagues (2023) in Journal 15 emphasized that independence does not mean doing everything without assistance, but rather the ability to make choices, express preferences, and exercise self-control. The assistive technology support described in Journal 17 further strengthens independence by helping individuals make decisions and participate more actively.

Overall, the summary of these seven journals indicates that progress in cognitive, communication, and independence aspects in individuals with multiple disabilities can only be achieved through integrated approaches. Early intervention, ongoing rehabilitation, family support, enhanced decision-making skills, and the use of assistive technology are essential elements to support sustainable and meaningful progress in all three areas.

4. Impact on Education & Services

In the discussion of journals 1, 2, 3, 4, 5, 6, 7, 9, 12, 16, 18, and 24, it was found that all twelve journals share similarities, directly or indirectly discussing the impact on children with multiple disabilities, namely the impact on education and services. In the discussion of journals 3, 7, 9, 12, 16, 18, and 24, it was found that multiple disabilities have a significant impact on aspects of children's education, particularly on the learning

process, children's participation in learning, and children's interactions in the classroom. This finding in journal 3 indicates that communication limitations experienced by children with multiple disabilities delay the development of literacy skills. (Kibayasi, F. S & Nihuka, K. A, 2025) Revealed that the use of Augmentative and Alternative Communication (AAC), an assistive technology, has a positive impact on the Reading skills of students with multiple disabilities. This can help children understand learning materials and aligns with Vygotsky's sociocultural theory, which emphasizes the interaction between human development and the culture in which they live. This demonstrates that learning is a social process. Therefore, the author concludes that children's cognitive development occurs through social interaction and external influences stemming from cultural development. Furthermore, journals 7 and 9 highlight that limitations in communication and social interaction also hinder the learning process and children's engagement in class. This aligns with Vygotsky's theory and the Zone of Proximal Development (ZPD). If teachers fail to adapt communication approaches and learning strategies to children's needs, their developmental potential within the ZPD will not be optimally realized. Consequently, children will be confused about initiating interactions and implementing learning with optimal results.

Journals 12 and 24 discuss how mismatches in assessments, multisensory approaches, and visual adaptations will hinder learning for children with multiple disabilities. Children will require repeated approaches and multisensory experiences to carry out the learning process. If these services are not provided, the learning process will be ineffective, and children's development will be stunted or delayed. Meanwhile, journals 16 and 18 highlight that multimodal learning approaches and supportive learning environments are interrelated, thereby enhancing children with multiple disabilities' learning motivation.

Meanwhile, discussions in journals 1, 2, 4, 5, and 6 also address children with multiple disabilities, both directly and indirectly, in relation to educational and support services. Discussions in journals 1 and 4 highlight the importance of early intervention and family support for children with multiple disabilities to support their learning readiness. This also relates to Vygotsky's theory of the zone of proximal development, which emphasizes the importance of mentors in helping children realize their communicative potential. Therefore, early intervention and family support can impact the provision of appropriate services that meet the learning needs of children with multiple disabilities. Furthermore, the discussion of services in Journal 5 highlights the existence of educational services that are not appropriate for children with multiple disabilities. (Taboer et al. 2024) revealed that there were 10 different special schools, found 43 students with multiple disabilities, most of whom had two types of disabilities, but were served with educational services for children with a single disability. Thus, it has an impact on the needs of children with multiple disabilities that are not met. This also indicates that scaffolding or facilitation is still weak in the child's environment, both at school and at home, as discussed in journal two. This journal highlights that the environment still has low welfare for people with disabilities and recommends that

children with disabilities must have appropriate policies. This emphasizes the educational service system and the support needed to create appropriate policies that improve the welfare of children with multiple disabilities.

5. Impact on Education & Services

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DISCUSSION

To ensure that children with multiple disabilities can meet their needs, based on the analysis of 28 journals related to the impact of children with multiple disabilities, we offer the following recommendations:

1. Integrated rehabilitation and therapy services with education.

With these services, children with multiple disabilities, who have physical-motor impairments and health problems, can receive physiotherapy and occupational therapy. School environments should be adapted to be disability-friendly. Health monitoring for children with multiple disabilities is also essential.

2. Psychological and emotional support.

Children with multiple disabilities require consistent support from both teachers and families. Teachers must adapt their teaching approach to each child's needs, ensuring that children with multiple disabilities can overcome the challenges they face. Counseling services or psychological support should also be provided for children with multiple disabilities and their families.

3. Inclusion programs and social support.

Schools are advised to provide education in an inclusive environment, with quality teachers who understand the role of children with multiple disabilities. Schools must also provide dedicated mentor teachers to ensure that children with multiple disabilities can meet their learning needs. This program can provide opportunities for children with multiple disabilities to participate in social activities with their peers.

4. Provide cognitive development services, alternative communication, and independence training.

The author recommends implementing gradual individual learning tailored to children with multiple disabilities. The use of alternative communication tools and visual learning should be optimal. Furthermore, learning programs should incorporate the development of children's independence, enabling them to perform daily activities independently.

5. Provide individual education services through assessments and individual learning programs (IPCs).
To help teachers understand the strengths and weaknesses of children with multiple disabilities, assessments and the development of individual learning programs are necessary. This allows teachers to tailor learning to children with multiple disabilities, rather than providing learning specifically for children with single disabilities. Teachers, parents, and experts can support this.
6. Families need to actively engage with mentoring and training services and with collaborative support. Families need to actively engage with parents through guidance and training services to support their children's development at home. Support systems must also be strengthened to ensure ongoing support for families and children.

CONCLUSION

Based on a review of various studies, it is clear that multiple disabilities are a highly complex condition with a broad impact on children's lives. This impact is not only felt in the individual child's development but also affects family dynamics, the educational process, service availability, and support from the surrounding environment. The various limitations children experience in communication, cognition, independence, social-emotional development, and health are interconnected and inseparable.

Overall, this literature review demonstrates that addressing children with multiple disabilities requires a comprehensive and sustainable approach. These efforts cannot stand alone; they must involve early intervention, strengthening families' roles, adaptive educational services, technological support, and policies that support children's needs. With strong cooperation between various parties, it is hoped that children with multiple disabilities can achieve a better quality of life and the opportunity to develop optimally according to their potential.

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