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Article

Parents' Involvement Towards the Enhancement of Motor Skills in Learners with Autism

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Abstract: This study investigates the extent of parents' involvement in enhancing the motor skills of learners with autism and examines the relationship between this involvement and the learners' motor skills development. Data collected from various indicators demonstrate that parents are highly involved in their children's motor skills programs. The learners exhibit proficient levels in both gross motor skills and fine motor skills. Statistical analysis reveals a significant, though weak, positive correlation between parental involvement and both gross and fine motor skills. These findings highlight the importance of active parental participation in the development of motor skills in learners with autism and suggest that increased parental engagement is associated with better motor skills outcomes. The study underscores the need for ongoing collaboration between parents and educators to support the motor skills development of learners with autism.

Keywords: Parents' involvement, motor skills, learners with autism, gross motor skills

Introduction

Motor skills are essential for the daily functioning and overall quality of life in learners with autism (Ozboke et al., 2022). These skills, which include basic motor coordination, balance, and manual dexterity, are crucial for independence in everyday activities (Sutapa et al., 2021). Individuals with autism often face significant challenges in motor development, impacting their ability to perform routine tasks and participate in social and educational activities (Rios & Benson, 2020). The developmental trajectory of motor skills in these individuals can vary greatly, necessitating targeted interventions (Jones et al., 2021).

Parental involvement plays a pivotal role in the developmental outcomes of children with autism, particularly in the enhancement of motor skills (Oliveira et al., 2021). Active participation by parents in

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both therapeutic and educational settings has been shown to significantly contribute to improvements in these essential skills (Chaidi & Drigas, 2020). Through structured and consistent home-based activities, parents can reinforce techniques used in professional therapy settings, enhancing skill acquisition and retention (Davis et al., 2022). This partnership between therapeutic settings and home involvement is critical for maximizing developmental gains (Smith & Roberts, 2019).

Learners with autism frequently encounter difficulties with motor skills such as poor coordination, balance issues, and challenges in fine motor tasks like writing or manipulating small objects (Liu et al., 2021). These motor deficits can impede academic achievements and social interactions, further isolating the individuals (Taheri et al., 2021). Therapeutic approaches such as occupational and physical therapies are commonly employed to address these difficulties. These therapies are designed to improve motor planning, coordination, and execution, with parental support playing a crucial role in transferring these skills to a variety of real-world settings (Martin et al., 2020). Autism spectrum disorder is associated with a broad range of motor skill challenges that affect both gross and fine motor abilities (Zampella et al., 2021).

According to Ruiz-Esteban et al. (2020) gross motor skills, which involve larger movements of the arms, legs, and other body parts, are critical for activities like walking or jumping. Fine motor skills, which are necessary for more precise actions using the hands and fingers, are essential for tasks such as writing or buttoning clothing. The deficiency in these skills can significantly impact a child's autonomy and interaction with their environment (Green et al., 2021). A deficiency in either gross or fine motor skills can have profound implications for a child's development (Escolana-Perez et al., 2020). Children with underdeveloped motor skills may struggle with everyday activities, leading to difficulties in school and social settings (Rahman & Chandrasekaran, 2021). For instance, challenges with gross motor skills can hinder a child's ability to participate in physical activities, which can affect their fitness levels, peer interactions, and overall well-being (Belcher et al., 2021). Similarly, deficiencies in fine motor skills can impede academic performance and self-care abilities, impacting a child's self-esteem and autonomy (Cempron, 2021).

This study is focused on assessing the extent of parental involvement and the motor skills of learners with autism at Mandaue City Central Sped School. The primary objectives are: 1) to evaluate the degree of parental involvement in activities aimed at enhancing motor skills, and 2) to assess the level of motor skills among these learners. These objectives aim to establish a clear understanding of the current status of motor skills development in this population and the role that parental involvement plays in this process (Johnson & Lee, 2022).

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Methodology

The methodology of this study utilized a Descriptive Correlational Research design to explore the relationship between two specific variables: the extent of parental involvement and the assessed motor skills of learners with autism. This approach was chosen to scientifically describe characteristics of the study population and to measure the interactions between variables without inferring a causal relationship (McCombes, 2022). Conducted at Mandaue City Central Sped School in Mandaue City, the study involved parents and their children diagnosed with autism, who are enrolled at the school. Parents completed a modified questionnaire that gathered data on their involvement in school-related activities, while teachers evaluated the children's gross and fine motor skills using a Likert scale. The instrument used to measure parental involvement was adapted from a prior study by Tenerife et al. (2023), which investigated the impacts of parental involvement on communication skills in children with autism. This comprehensive approach allowed for a detailed analysis of how parental engagement correlates with motor skill development in autistic learners.

Results and Discussion

Table 1. The extent of Parents' Involvement towards Enhancing the Motor Skills of the Learners with Autism

S/N	Indicators	WM	Verbal Description
1	I work with the teacher when planning my child's motor skills enhancement program.	4.53	Highly Involved
2	I inform the teacher what goals I want to be included in my child's motor skills enhancement program.	4.40	Highly Involved
3	I am an equal partner in the relationship I have with the teacher in developing my child's motor skills.	4.53	Highly Involved
4	The teacher and I decide which goals are most important to work on with my child's motor skills.	4.48	Highly Involved
5	I offer help in response to my child's responsibilities in school.	4.58	Highly Involved
6	The teacher and I work together to teach my child new motor skills.	4.43	Highly Involved
7	I teach my child how to communicate by asking for advice from the teacher.	4.43	Highly Involved
8	Working with my child's teacher has made me feel more capable of teaching my child to perform well.	4.58	Highly Involved
9	I feel comfortable asking for advice and sharing ideas with my child's teacher.	4.55	Highly Involved
10	I spend time asking for help from the teacher on how to teach new motor skills to my child	4.40	Highly Involved
	Aggregate Weighted Mean	4.49	Highly Involved

The data presented in Table 1 highlights the significant extent of parents' involvement in enhancing the motor skills of learners with

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autism. Each indicator in the table shows a high level of parental engagement, with weighted means (WM) consistently above 4.40. Specifically, parents report being highly involved in planning their child's motor skills enhancement program (WM = 4.53), sharing their goals with the teacher (WM = 4.40), and considering themselves equal partners with the teacher (WM = 4.53). Additionally, parents and teachers collaboratively decide on the most important goals (WM = 4.48), and parents actively offer help with their child's school responsibilities (WM = 4.58). This collaboration extends to teaching new motor skills (WM = 4.43) and communication techniques (WM = 4.43), where parents seek and apply advice from teachers. The sense of capability and comfort parents feel from this partnership is evident, with high scores for feeling capable of teaching their child (WM = 4.58) and comfortable asking for advice (WM = 4.55). Overall, the aggregate weighted mean of 4.49 reflects a high level of parental involvement, underscoring the crucial role parents play in supporting their children's motor skill development through active and collaborative engagement with teachers.

Table 2. Level of Motor Skills of Learners with Autism in terms of Gross Motor Skills

S/N	Indicators	WM	Verbal Description
1	Climbs on a chair or elevated piece of furniture like a bed without help	4.35	Advanced
2	Walks backwards	4.10	Proficient
3	Runs without tripping or falling	4.23	Advanced
4	Walks downstairs, 2 feet on each step, with one hand held	3.80	Proficient
5	Walks upstairs holding handrail,1 foot on each step	3.85	Proficient
6	Walks upstairs with alternate feet without holding the handrail	4.35	Advanced
7	Walks downstairs with alternate feet without holding the handrail	4.35	Advanced
8	Moves body parts as directed	4.40	Advanced
9	Jumps Up	4.43	Advanced
10	Throws the ball overhead with direction	4.15	Proficient
11	Hops 1 to 3 steps on preferred foot	4.33	Advanced
12	Jumps and turns	4.40	Advanced
13	Dance patterns / join group movement activities	3.78	Proficient
	Aggregate Weighted Mean	4.19	Proficient

The data in Table 2 provides a comprehensive overview of the level of gross motor skills among learners with autism. The indicators reveal varying degrees of proficiency, with several skills reaching advanced levels. Notably, learners demonstrate advanced abilities in climbing on furniture (WM = 4.35), running without falling (WM = 4.23), walking upstairs and downstairs without holding the handrail (both WM = 4.35), moving body parts as directed (WM = 4.40), jumping up (WM = 4.43), hopping on a preferred foot (WM = 4.33), and performing jumps and turns (WM = 4.40). Proficient skills include walking backwards (WM = 4.10), walking downstairs with assistance (WM = 3.80), walking

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upstairs holding a handrail (WM = 3.85), throwing a ball overhead (WM = 4.15), and participating in dance patterns or group movement activities (WM = 3.78). The aggregate weighted mean of 4.19 indicates an overall proficient level of gross motor skills among the learners. This data suggests that while learners with autism exhibit strong capabilities in several gross motor activities, there remains a spectrum of skill levels, highlighting areas where further development and targeted support could enhance overall motor proficiency.

Table 3. Level of Motor Skills of Learners with Autism in terms of Fine Motor Skills

S/N	Indicators	WM	Verbal Description
1	Uses all 5 fingers to get food/toys placed on a flat surface	4.28	Advanced
2	Picks up objects with thumb and index finger	4.23	Advanced
3	Displays a definite hand preference	3.98	Proficient
4	Puts small objects in/out of containers	4.15	Proficient
5	Holds crayon with all the fingers of his/her hand making a fist (l.e, palmar grasp)	4.03	Proficient
6	Unscrew the lid of containers or unwrap food	3.55	Proficient
7	Scribbles spontaneously	3.75	Proficient
8	Scribbles vertical and horizontal lines	3.70	Proficient
9	Draws circle purposely	3.73	Proficient
10	Draws a human figure (head, eyes, trunk, arms, hands/fingers)	3.35	Proficient
11	Draws a house using geometric forms	3.50	Proficient
	Aggregate Weighted Mean	3.84	Proficient

The data in Table 3 illustrates the level of fine motor skills among learners with autism, highlighting a range of abilities from advanced to proficient. Learners exhibit advanced skills in using all five fingers to grasp food or toys from a flat surface (WM = 4.28) and picking up objects with their thumb and index finger (WM = 4.23). Most other fine motor skills fall within the proficient category. These include displaying a definite hand preference (WM = 3.98), placing small objects in and out of containers (WM = 4.15), holding a crayon with a palmar grasp (WM = 4.03), and unscrewing lids or unwrapping food (WM = 3.55). Additionally, learners show proficiency in scribbling spontaneously (WM = 3.75), drawing vertical and horizontal lines (WM = 3.70), and drawing circles purposefully (WM = 3.73). More complex tasks, such as drawing a human figure (WM = 3.35) and drawing a house using geometric forms (WM = 3.50), also fall within the proficient range. The aggregate weighted mean of 3.84 reflects an overall proficient level of fine motor skills, indicating that while learners with autism have developed several fine motor abilities, there is still room for improvement in more intricate and detailed tasks. This suggests the need for continued focus and support in enhancing fine motor skills to achieve greater advancement.

Table 4. Summary of the Level of Motor Skills of Learners with Autism

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Components	WM	Verbal Description
Gross Motor Skills	4.19	Proficient
Fine Motor Skills	3.84	Proficient
Grand Mean	4.02	Proficient

Table 4 presents a summary of the motor skills levels among learners with autism, encompassing both gross and fine motor skills. The weighted mean (WM) for gross motor skills is 4.19, categorizing it as proficient. This indicates that learners with autism generally perform well in activities such as climbing, running, walking stairs, jumping, and participating in group movements, though there are variations in specific skills. The WM for fine motor skills is slightly lower at 3.84, also described as proficient. This proficiency level reflects the learners' capabilities in tasks such as using fingers to grasp objects, demonstrating hand preference, and performing basic drawing activities, while more intricate tasks still need improvement. The overall grand mean of 4.02 further reinforces that, on average, learners with autism exhibit a proficient level of motor skills. This comprehensive assessment underscores the learners' strong foundational motor abilities while highlighting areas for continued development, particularly in fine motor tasks, to achieve higher levels of skill mastery.

Table 5. Test of the significant relationship between parents' involvement and motor skills of learners with autism

Variables	r-value	Strength of Correlation	p-value	Decision	Result
Parents' Involvement and Gross Motor Skills	0.482*	Weak Positive	0.002	Reject Ho	Significant
Parents' Involvement and Fine Motor Skills	0.453*	Weak Positive	0.003	Reject Ho	Significant

*Significant at p<0.05 (two-tailed)

Table 5 presents the results of a statistical test examining the relationship between parents' involvement and the motor skills of learners with autism. The r-value for the relationship between parents' involvement and gross motor skills is 0.482, indicating a weak positive correlation. This relationship is statistically significant, as evidenced by a p-value of 0.002, leading to the rejection of the null hypothesis (Ho). Similarly, the relationship between parents' involvement and fine motor skills has an r-value of 0.453, also indicating a weak positive correlation, with a p-value of 0.003, which is statistically significant and results in the rejection of the null hypothesis. These findings demonstrate that there is a significant, albeit weak, positive relationship between the extent of parents' involvement and the motor

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skills development of learners with autism. This suggests that increased parental involvement is associated with better motor skills outcomes, highlighting the importance of active parental participation in the development programs for these learners.

Conclusion

The analysis of the data reveals a significant positive relationship between parents' involvement and the motor skills development of learners with autism. Parents exhibit a high level of involvement in enhancing their children's motor skills. Learners with autism demonstrate proficient levels in both gross motor and fine motor skills. The statistical test further confirms that increased parental involvement is significantly correlated with better motor skills outcomes, with weak positive correlations for both gross motor skills and fine motor skills. These findings underscore the critical role of active parental engagement in the development of motor skills in learners with autism, highlighting the need for continued support and collaboration between parents and educators to enhance these essential skills.

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