

Article

Skills Performance and the Challenges of Parents in Dealing Children with Autism in the Time of Covid- 19 Pandemic

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Abstract: This study investigates the relationship between various parental profile factors and the development of adaptive skills, functional academic skills, and communication skills in children with autism. The parental factors examined include age, gender, marital status, highest educational attainment, and monthly income. Using chi-square tests to analyze the data, the study found no significant associations between these parental demographics and the children's skills in any of the examined areas. The results consistently indicated p-values above the standard threshold for statistical significance ($p < .05$), leading to the conclusion that these specific parental factors do not significantly influence the adaptive, academic, or communication abilities of children with autism. The findings suggest that other factors, potentially related to individual characteristics of the children or specific educational interventions, may be more critical in shaping these skills. This study underscores the need for further research to explore these alternative influences to better understand and support the development of children with autism.

Keywords: Skills performance, adaptive skills, functional academic & communication skills, parental profile

Introduction

The outbreak of the COVID-19 pandemic brought unprecedented challenges to families around the world, significantly impacting daily routines, mental health, and social dynamics (Zhou et al., 2020). Among the affected populations, parents of children with autism spectrum disorder (ASD) faced unique and intensified difficulties. Autism, a neurodevelopmental disorder characterized by challenges in social interaction, communication, and repetitive behaviors, requires consistent support and specialized interventions (Lord et al., 2020). The sudden disruption of services and routines due to lockdowns and social distancing measures posed significant hurdles for these families (White et al., 2021). The pandemic's impact on



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children with ASD included disruptions to their education, therapeutic services, and social interactions, which are crucial for their development (Bellomo et al., 2020; Colizzi et al., 2020). Furthermore, increased stress levels among parents of children with ASD have been documented, highlighting the need for targeted support and interventions during such crises (Amorim et al., 2020; Espinosa et al., 2020).

Skill performance in children with autism is often closely tied to structured environments and regular therapeutic support, which were severely disrupted during the pandemic (Eshraghi et al., 2020). Schools, therapy centers, and support groups transitioned to remote or reduced services, leaving parents to manage their children's needs with limited resources (Neece et al., 2020). This transition not only impacted the skill development of children with autism but also placed a substantial emotional and logistical burden on their caregivers (Phelps & Sperry, 2020). The pandemic placed a considerable burden on parents, who had to step into the roles of educators and therapists without formal training (Alhuzimi, 2021). Managing their children's educational and therapeutic needs at home required significant time, energy, and resources (Stankovic et al., 2021). Many parents struggled to balance these demands with their own work responsibilities, leading to increased stress and burnout (Manning et al., 2021). The lack of respite or support exacerbated these challenges, creating a cycle of exhaustion and frustration (Zhao et al., 2021).

Moreover, many families demonstrated remarkable resilience and adaptability. Parents sought creative solutions to maintain a semblance of routine and structure, such as setting up home classrooms and therapy spaces (Asbury et al., 2020). Communities and support groups shifted to virtual platforms, providing a space for parents to share experiences and strategies (Latzer et al., 2021). However, these adaptations, while helpful, could not fully replace the benefits of professional support and structured environments (Baweja et al., 2021). The long-term implications of the pandemic on skill development in children with autism remain to be fully understood. The disruption in early intervention and continuous support may have lasting effects on their progress (Pellicano et al., 2021). Recognizing these impacts is essential for planning future interventions and support systems to mitigate the negative consequences experienced during such crises (Manning et al., 2021). Research highlights the need for policies that support flexible and resilient healthcare and educational systems to better serve children with autism in future emergencies (Ozonoff, 2021).

Despite the increasing focus on autism and the effects of the COVID-19 pandemic on families, significant research gaps remain concerning the detailed profiles of parents. Specifically, there is a lack of comprehensive studies examining how parents' age, gender, marital status, highest educational attainment, and combined monthly income

influence their perceptions of their children's skill performance. Additionally, there is insufficient data on the current levels of adaptive skills (such as self-feeding), functional academic skills (including reading), and socialization and communication skills in children with autism based on parental reports. Furthermore, the potential relationship between parents' demographic profiles and their perceptions of their children's skill performance is underexplored. Addressing these gaps is crucial for developing targeted support and interventions for families of children with autism.

To address the identified gaps, future research at the REACH Center-Main Campus should focus on a comprehensive study involving a diverse sample of parents of children with autism. This research should systematically examine how demographic factors such as age, gender, marital status, educational attainment, and combined monthly income impact parents' perceptions of their children's skill performance in areas like adaptive skills (self-feeding), functional academic skills (reading), and socialization and communication skills. Additionally, the research should explore the potential correlations between parents' profiles and their perceptions to inform tailored support strategies. This direction will provide valuable data to develop targeted interventions and policies that address the specific needs of families with children with autism, especially in the context of disruptions like the COVID-19 pandemic.

Methodology

This descriptive research was designed to investigate the association between parents' challenges and their children's skill performance in teaching children with autism. The study employed a quantitative approach to gather comprehensive data on this relationship. To assess the skills performance of children with autism, the researcher used a structured checklist. Quantitative data were collected through questionnaires distributed to parents, capturing numeric information on various skill levels of their children. These responses were analyzed descriptively to identify trends and insights, providing a detailed understanding of the impact of parental challenges on their children's skill development. The study was conducted at the Parents REACH Foundation-Main Campus, a non-profit organization dedicated to supporting children with autism through early intervention programs. The foundation serves approximately 17 students through a combination of virtual classes, printed worksheets, and recently reintroduced limited face-to-face sessions, all designed to ensure continuity of education and therapy during the pandemic. The professional team at the foundation includes registered behavior technicians, psychometricians, occupational therapists, and interns, all working collaboratively to provide comprehensive support and intervention tailored to each child's needs.

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The respondents for this study were parents of primary-level students, aged 5 to 13 years, who had been diagnosed with autism. By focusing on this specific group, the research aimed to understand the unique challenges faced by these parents during the pandemic and how these challenges influenced their children's skill performance. The study's methodology ensured that the collected data were robust and reliable, offering valuable insights into the association between parental challenges and the effectiveness of home-based educational and intervention.

Results and Discussion

Table 1. Parents age and gender

Age (in years)	Male		Female		f	Total %
	f	%	f	%		
41 and above	1	10.00	1	10.00	2	20.00
36 – 40	1	10.00	3	30.00	4	40.00
35 and below	1	10.00	3	30.00	4	40.00
Total	3	30.00	7	70.00	10	100.00

Table 1 provides a breakdown of the age and gender distribution of the parents participating in the study. The data reveals that the majority of respondents were female, accounting for 70% (7 out of 10) of the total sample, while males constituted 30% (3 out of 10). When considering age groups, both the 36-40 and 35 and below categories had the highest representation, with each group comprising 40% of the total respondents. Specifically, within the 36-40 age group, there was 1 male (10%) and 3 females (30%). Similarly, in the 35 and below age group, there was 1 male (10%) and 3 females (30%). The 41 and above age group had the lowest representation, with only 2 parents (20%), evenly split between 1 male (10%) and 1 female (10%). This distribution indicates a relatively balanced representation of younger and middle-aged parents, with a significant predominance of female respondents.

Table 2. Marital Status

Status	f	%
Married	8	80.00
Separated	1	10.00
Live-in partner	1	10.00
Total	10	100.00

Table 2 provides an overview of the marital status of the parents participating in the study. The majority of respondents were married, comprising 80% (8 out of 10) of the total sample. This indicates that most of the children with autism in the study are being raised in a traditional family structure. Additionally, 10% (1 out of 10) of the respondents were separated, and another 10% (1 out of 10) reported living with a partner. This distribution shows that while the vast

majority of parents are married, there is a small but notable presence of other family dynamics, including separated parents and those living with partners. Overall, the data highlights the predominance of married parents within the study group.

Table 3. Educational Attainment

Educational Attainment	f	%
College Graduate	8	80.00
College Level	1	10.00
High School Graduate	1	10.00
Total	10	100.00

Table 3 provides a summary of the educational attainment of the parents participating in the study. The data indicates that the majority of respondents, 80% (8 out of 10), are college graduates. This suggests a high level of education among most of the parents, which could potentially influence their ability to support their children's learning and development. Additionally, 10% (1 out of 10) of the respondents had attended college but had not graduated, while another 10% (1 out of 10) were high school graduates. This distribution reflects that although most parents have achieved higher education, there is a small proportion with lower educational attainment. Overall, the high percentage of college graduates suggests that the majority of parents are well-educated, which might impact their approaches to managing their children's educational and developmental needs.

Table 4. Combine Monthly Income

Income Cluster	Definition	Range of Monthly Family Incomes (For a Family size of 5 members)	f	%
Lower Income	Between the poverty line and twice the poverty line	Between PHP 9, 520 to PHP 19, 040	2	20.00
Lower Middle Income	Between two- and four- times the poverty line	Between PHP 19, 040 to 38, 080	PHP 3	30.00
Middle Income	Between four- and seven- times the poverty line	Between PHP 38, 080 to 66, 640	PHP 3	30.00
Upper Middle Income	Between seven- and twelve- times the poverty line	Between PHP 66, 640 to 114, 240	PHP 2	20.00

Table 4 provides an analysis of the combined monthly income of the families of the parents participating in the study. The income distribution is categorized into four clusters based on multiples of the poverty line for a family size of five members. The data shows that 20% (2 out of 10) of the families fall within the lower-income cluster, earning between PHP 9,520 and PHP 19,040 monthly. The largest groups, each comprising 30% (3 out of 10) of the sample, are in the lower middle-

income and middle-income clusters. Families in the lower middle-income cluster earn between PHP 19,040 and PHP 38,080 per month, while those in the middle-income cluster have monthly earnings ranging from PHP 38,080 to PHP 66,640. Lastly, 20% (2 out of 10) of the families are in the upper middle-income cluster, with monthly incomes between PHP 66,640 and PHP 114,240. This distribution highlights a diverse range of economic backgrounds among the respondents, with a significant portion of the sample falling into the middle-income categories, suggesting a relatively balanced representation of different income levels within the study.

Table 5. Level of Adaptive Skills of Children with Autism: Self- Feeding skills

S/N	Statements	WM	sd	Verbal Interpretation
1	Expresses the need to eat/drink through nonverbal and/ verbal means	2.30	0.67	Needs Improvement
2	Points to/attach verbal labels to pictures depicting regular meal times	2.40	0.52	Learned
3	Uses gestures for signs (hand signals) when in need of food ("eat" sign) and water ("drink" sign) in combination with their appropriate verbal language	2.20	0.79	Needs Improvement
4	Expresses desires/need to eat through modeling	2.30	0.67	Needs Improvement
5	Swallows and chews different kinds of food	2.70	0.448	Learned
6	Swallows' liquid like soup through modeling	3.00	0.00	Learned
7	Chews and swallows different textured foods: *food with consistency (mashed potatoes, vegetables, and fruits) *soft foods (soft cheese, banana, scrambled eggs) *well-formed foods (chicken, meat)	2.50	0.53	Learned
8	*Crunchy foods (nuts, popcorn, crackers) Talks about different kinds of food during snack time using pictures	2.00	0.67	Needs Improvement
9	Tastes actual foods in small amounts, from soup to crunchy, on different occasions	2.40	0.52	Learned
10	Chews and swallows' food properly through modeling	3.00	0.00	Learned
11	Picks up food with fingers or scoops with a spoon	2.40	0.52	Learned
		2.47		
	Aggregated Mean			Learned
	Aggregated Standard Deviation		0.49	

Table 5 presents the level of adaptive self-feeding skills of children with autism. The overall aggregated mean of 2.47, with an aggregated standard deviation of 0.49, indicates that the children are generally at the "Learned" level for self-feeding skills. Specific skills such as swallowing and chewing different kinds of food (WM = 2.70, sd = 0.448), swallowing liquid like soup through modeling (WM = 3.00, sd = 0.00), and chewing and swallowing food properly through modeling (WM = 3.00, sd = 0.00) show stronger performance, indicating that these skills are well-established. Additionally, pointing to or attaching verbal labels to pictures depicting regular meal times (WM = 2.40, sd = 0.52)

and picking up food with fingers or scooping with a spoon (WM = 2.40, sd = 0.52) are also areas where children have shown competence. However, certain skills need improvement, such as expressing the need to eat/drink through nonverbal and verbal means (WM = 2.30, sd = 0.67), using gestures or signs for food and water (WM = 2.20, sd = 0.79), and talking about different kinds of food during snack time using pictures (WM = 2.00, sd = 0.67). These areas indicate that while children have learned basic self-feeding skills, there is room for enhancement in communication and more complex feeding behaviors. Overall, the results suggest that children with autism in the study have learned basic self-feeding skills but require further support to improve communication and more complex feeding tasks.

Table 6. Level of Functional Academic Skills of Children with Autism

S/N	Statements	WM	sd	Verbal Interpretation
1	Read functional sight words for foods and 1.60 safety sign		0.70	Not Learned
2	Read sight words for daily living activities 2.00 and community access		0.67	Needs Improvement
3	Read sight words for things at home and 2.10 school		0.74	Needs Improvement
4	Read his/ her name, age, address, and 2.20 other personal information about his self		0.42	Needs Improvement
Aggregated Mean		1.98		Needs
Aggregated Standard Deviation		0.63 Improvement		

Table 6 presents the level of functional academic skills of children with autism, focusing on their ability to read and recognize sight words and personal information. The overall aggregated mean of 1.98, with an aggregated standard deviation of 0.63, indicates that, on average, the children's functional academic skills "Need Improvement." Breaking down the specific statements, it is evident that children struggle the most with reading functional sight words for foods and safety signs, with a weighted mean (WM) of 1.60 and a standard deviation (sd) of 0.70, which is categorized as "Not Learned." Slightly better, but still requiring improvement, are the skills related to reading sight words for daily living activities and community access (WM = 2.00, sd = 0.67), sight words for things at home and school (WM = 2.10, sd = 0.74), and reading personal information such as name, age, and address (WM = 2.20, sd = 0.42). These results suggest that while there is some foundational recognition of sight words and personal information, overall, the functional academic skills of the children in the study are not yet fully developed. There is a clear need for targeted interventions to improve their ability to read and understand sight words related to daily activities, safety, and personal information, which are crucial for their independence and daily functioning. The findings underscore the importance of specialized educational strategies and supports to enhance these critical academic skills in children with autism.

Table 7. Level of Socialization and Communication Skills of Children with Autism

S/N	Statements	WM	sd	Verbal Interpretation
1	Greets familiar adults with prompting	2.20	0.79	Needs Improvement
2	Tells own first and last name	2.50	0.71	Learned
3	Knows ages (e.g., tells/holds up fingers)	2.30	0.48	Needs Improvement
4	Answers correctly when asked if he or she is a boy or girl	1.90	0.74	Needs Improvement
5	express needs, wants, emotions	2.10	0.57	Needs Improvement
6	make choices	1.90	0.74	Needs Improvement
7	Interacts with family members positively with/without prompting	2.30	0.48	Needs Improvement
8	Initiate a conversation	1.60	0.70	Not Learned
9	Kisses the hands of parents and adults	2.10	0.74	Needs Improvement
10	Expresses words with feelings (e.g., I love you, Papa/Mama)	2.00	0.94	Needs Improvement
11	Greets family members with prompting	2.20	0.42	Needs Improvement
12	Asks permission when going to a certain place	1.40	0.70	Not Learned
13	Listens to parents/adults' suggestions	2.10	0.32	Needs Improvement
14	Follow simple instructions	2.50	0.53	Learned
Aggregated Standard Deviation		2.08	0.63	Needs Improvement

The data presented in Table 7 outlines the level of socialization and communication skills of children with autism based on a series of specific behaviors and abilities. From the table, it is evident that children with autism exhibit varying levels of proficiency across different social and communication skills. The behaviors that were classified as "Learned" include telling their first and last name (WM = 2.50, sd = 0.71) and following simple instructions (WM = 2.50, sd = 0.53). These are the only two behaviors that reached this level of proficiency. Several behaviors are classified as "Needs Improvement," indicating a moderate level of proficiency that requires further development. These include greeting familiar adults with prompting (WM = 2.20, sd = 0.79), knowing ages (WM = 2.30, sd = 0.48), expressing needs, wants, and emotions (WM = 2.10, sd = 0.57), interacting positively with family members with or without prompting (WM = 2.30, sd = 0.48), kissing the hands of parents and adults (WM = 2.10, sd = 0.74), expressing words with feelings (WM = 2.00, sd = 0.94), greeting family members with prompting (WM = 2.20, sd = 0.42), and listening to parents' or adults' suggestions (WM = 2.10, sd = 0.32). A few behaviors are categorized as "Not Learned," highlighting areas where the children show significant deficiencies. These include initiating a conversation (WM = 1.60, sd = 0.70) and asking permission when going to a certain place (WM = 1.40, sd = 0.70). Overall, the aggregated standard deviation for the behaviors is 2.08 with a standard deviation of 0.63, which collectively falls under the "Needs Improvement" category. This suggests that, while there are areas of proficiency, many social and communication skills among children with autism require significant improvement and targeted interventions to enhance these essential life skills.

Table 8. Relationship Between the Parents' Profile and the Adaptive Skills of Children with Autism

Parents' Profile	df	χ^2 -value	p-value	Decision	Remarks
Age	1	.625	.429	Do not Reject Ho	Not Significant
Gender	1	1.270	.260	Do not Reject Ho	Not Significant
Marital Status	1	.104	.747	Do not Reject Ho	Not Significant
Highest Educational Attainment	2	3.750	.153	Do not Reject Ho	Not Significant
Monthly Income	1	.278	.598	Do not Reject Ho	Not Significant

The data in Table 8 examines the relationship between various aspects of the parents' profile and the adaptive skills of children with autism. The results indicate that none of the parents' profile factors showed a significant relationship with the adaptive skills of children with autism. Specifically, the p-values for age ($\chi^2 = .625$, $p = .429$), gender ($\chi^2 = 1.270$, $p = .260$), marital status ($\chi^2 = .104$, $p = .747$), highest educational attainment ($\chi^2 = 3.750$, $p = .153$), and monthly income ($\chi^2 = .278$, $p = .598$) were all above the conventional threshold for statistical significance ($p < .05$). Consequently, the null hypothesis (Ho) for each variable was not rejected, leading to the conclusion that these parental profile factors do not have a statistically significant impact on the adaptive skills of children with autism in this study. This lack of significant findings suggests that other factors, possibly more directly related to the children's environment or individual characteristics, may play a more critical role in influencing the adaptive skills of children with autism. Further research might explore these other factors to better understand what contributes to the development of adaptive skills in these children.

Table 9. Relationship Between the Parents' Profile and the Functional Academic Skills of Children with Autism

Parents' Profile	df	χ^2 -value	p-value	Decision	Remarks
Age	1	1.667	.197	Do not Reject Ho	Not Significant
Gender	1	.476	.490	Do not Reject Ho	Not Significant
Marital Status	2	3.750	.153	Do not Reject Ho	Not Significant
Highest Educational Attainment	2	2.500	.287	Do not Reject Ho	Not Significant
Monthly Income	1	1.667	.197	Do not Reject Ho	Not Significant

Table 10. Relationship Between the Parents' Profile and the Communication Skills of Children with Autism

Parents' Profile	df	χ^2 -value	p-value	Decision	Remarks
Age	1	.278	.598	Do not Reject Ho	Not Significant
Gender	1	.079	.778	Do not Reject Ho	Not Significant
Marital Status	1	.104	.747	Do not Reject Ho	Not Significant
Highest Educational Attainment	2	1.667	.435	Do not Reject Ho	Not Significant
Monthly Income	1	.625	.429	Do not Reject Ho	Not Significant

The data presented in Table 9 explores the relationship between the parents' profile and the functional academic skills of children with autism. The analysis revealed that none of these parental profile factors had a statistically significant relationship with the functional academic skills of children with autism. Specifically, the p-values for age ($\chi^2 = 1.667$, $p = .197$), gender ($\chi^2 = .476$, $p = .490$), marital status ($\chi^2 = 3.750$, $p = .153$), highest educational attainment ($\chi^2 = 2.500$, $p = .287$), and monthly income ($\chi^2 = 1.667$, $p = .197$) were all above the standard threshold of $p < .05$, indicating no significant associations. Consequently, the null hypothesis (H_0) for each factor was not rejected. These findings suggest that the functional academic skills of children with autism are not significantly influenced by the examined parental profile factors. This implies that other elements, possibly related to the child's individual attributes or specific educational interventions, might be more critical in shaping their functional academic skills. Future research could benefit from focusing on these alternative factors to better understand the determinants of functional academic success in children with autism.

Conclusion

The comprehensive analysis of the relationship between the parents' profile and various skills of children with autism, including adaptive skills, functional academic skills, and communication skills, reveals that there is no significant impact of parental factors such as age, gender, marital status, highest educational attainment, and monthly income on the development of these skills. The chi-square tests conducted for each skill category consistently resulted in p-values above the threshold for statistical significance ($p < .05$), leading to the decision not to reject the null hypothesis for any of the parental profile

factors. This indicates that these parental demographics do not play a significant role in influencing the adaptive, functional academic, or communication skills of children with autism. Consequently, it suggests that other elements, possibly more directly related to the children's individual characteristics or specific environmental and educational interventions, may have a more substantial effect on the development of these skills. Further research should focus on identifying and analyzing these factors to better understand and support the growth of children with autism in these key areas.

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