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Intervention Strategies Used by Teachers for Addressing Anti-Social Behaviors of Children with Autism Spectrum Disorder in Punjab

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ABSTRACT

The paper explores intervention practices among teachers to manage antisocial behavior among children with Autism Spectrum Disorders (ASD) in Punjab, Pakistan. ASD is a neurodevelopmental disorder that is lifetime and that its features comprise weakness of social-communication and behavioral difficulties, which may be inclined to create an issue in inclusion of other children in the conventional classrooms. The teachers have found it more difficult to cater to the needs of the autistic students in the province such as Punjab where there is low literacy and there are limited facilities available in the schools. The design of the research was a quantitative descriptive study in which data was collected using a structured close-ended questionnaire to 133 special-education teachers as well as allied professionals in southern Punjab. The analysis was performed with the help of SPSS version 26, through both descriptive and inferential statistics to discuss the correlation between the demographics of the teacher and the use of various strategies. The results showed that proactive classroom management techniques such as predicting triggers, giving straightforward instructions and maintaining structured settings were often used by educators. Visual aids, social narratives, reduction of sensory distraction and peer-mediated play, also emerged as some of the methods used by teachers to enhance social interaction. Teaching experience and educational qualification contributed towards differences in the choice of strategy. These findings support the idea that long-term teacher training, appropriate changes in policies, and enhanced institutional changes are needed to improve inclusive education among children with ASD.

Introduction

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental condition characterized by deficits in social communication and the presence of restricted, repetitive behaviors or interests. As stated in Diagnostic and Statistical Manual of Mental Disorders (DSM-5), ASD occurs in persons with a continuum of functioning level and requires individualized educational, behavioral, and therapeutic interventions. The prevalence of ASD across the world has been increasing significantly during the last 20 years, which results in the increased demand of inclusive education and special services of support in the spheres of regular and special education. The increased awareness comes with the problem of providing teachers with the knowledge, tools, and confidence to deal with the various behavioral challenges in the classroom especially the anti-social behaviour that is often witnessed in children with ASD (Rezkiani & Aprilia, 2024).

In the case of autism, anti-social behaviors are not those that are delinquent or morally deviant but rather behaviors that are contrary to the anticipated social norms and interfere with the learning environment. These are aggression, withdrawal, non-compliance and self-injury behaviors. These behaviors may be major obstacles to academic development, social interactions and emotional health, both to the children practicing them and to others and the teachers. In the case of teachers these issues require theoretical knowledge as well as practical skills to resolve them. Nevertheless, research has always claimed a significant number of educators are not ready to work with ASD students, particularly in the areas with fewer opportunities of accessing professional development opportunities and special education (Ruppert et al., 2016).

Pakistan, in the province of Punjab, is where ASD diagnoses are on the rise, the education infrastructure is limited, and cultural attitudes towards disability are a particular challenge. Although there are special education institutions, they are unevenly spread and often without trained staff, therapeutic resources and coherent policy. The mainstream educators are actively finding children with ASD in their classroom but they may lack the required training and institutional support to effectively deal with complex behavioral problems. In this respect, the teacher-led interventions are presented as a practical and scaled down method of curbing the anti-social behaviors, as long as they are based on empirical studies and adjusted to the local circumstances (Iqbal et al., 2024; Aftab et al., 2023).

The paper discusses how teacher-led interventions can be used to address the issue of anti-social behavior among children with ASD, in the context of the educational background in Punjab. The review is based on a wide range of literature to conceptualize anti-social behavior, classify interventions strategies, assess their efficacies, and analyses contextual issues associated with implementation. It, also, examines the effects of teacher demographics, gap in current literature, and theoretical frameworks underlying intervention design. Finally, it is expected to inform practice and policy by providing information about how strategies implemented in the classroom can be streamlined in order to meet the needs of students with ASD, minimize occurrences of behaviors, and encourage inclusive learning experiences (Iqbal et al., 2024; Aftab et al., 2023).

Autism Spectrum Disorder (ASD) is a complicated neurodevelopmental disorder that is marked by intractable impairment in social communication and social interaction, and limited and monotonous behavioral patterns. The role of early identification and intervention is becoming more and more popular in the last 30 years as the prevalence of ASD and public awareness have grown significantly. Many studies reiterate that early intervention as soon as autism is suspected can tremendously improve the development of the children with ASD in communication, behavioral and social development (Ruhe, 2007). Besides, not all interventions are empirically tested and not all the studies compared the effectiveness of various models to each other.

According to the recent discoveries, family involvement and factors in the home setting, including parental acceptance, are also important in the success of the intervention (Rezkiani & Aprilia, 2024).

The proposed study will address the gaps by conducting a systematic investigation of the range of interventional approaches to be used with children with ASD. The study aims at determining evidence-based practices applicable to various children and families living with autism by assessing their results, accessibility, and scalability. ASD is the subject that has been given attention over the last thirty years since this condition can be studied in several ways Various studies have suggested the effectiveness of early interventions to reach the full potential of the child with ASD. There are various interventions available for autism spectrum disorder to change the problematic behavior of the child. The present study intends to fill the intervention gaps by investigating the different interventional strategies for children with autism spectrum disorder (Alotaibi et al., 2025; Zeng et al., 2025; Meera et al., 2025).

This research lays a foundation for further studies in low-resource and culturally diverse settings, encouraging localized solutions to global challenges in autism education. It supports Pakistan's broader goals of inclusive education and equal learning opportunities for all children, regardless of their developmental profile.

Objectives of Study

1. To identify the most frequently used intervention strategies by teachers for managing antisocial behaviors in children with autism spectrum disorder (ASD) in Punjab.
2. To evaluate the perceived effectiveness of different intervention strategies in reducing antisocial behaviors (e.g., aggression, non-compliance, withdrawal) among children with ASD.
3. To examine the relationship among teachers' agreement, frequency of use, and perceived effectiveness of intervention strategies for managing antisocial behaviors of children with ASD.
4. To analyze the influence of teachers' demographic factors (gender, qualification, and teaching experience) on their implementation of intervention strategies for managing antisocial behaviors of children with ASD.

Research Questions

1. What types of intervention strategies (e.g., behavioral, sensory, social skills training) are most frequently used by teachers in managing antisocial behaviors of children with ASD?
2. What level of effectiveness do teachers report for different types of intervention strategies in reducing aggression, non-compliance, and withdrawal among children with ASD?
3. What is the relationship among teachers' agreement, frequency of use, and perceived effectiveness of intervention strategies for managing antisocial behaviors of children with ASD?
4. What are the differences in teachers' implementation of intervention strategies for managing antisocial behaviors of children with ASD with respect to their gender, qualification, and years of teaching experience?

Literature Review

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition that affects how individuals perceive and interact with the world. It is characterized by difficulties in social communication, social interaction, and the presence of restricted, repetitive patterns of behavior, interests, or activities. These symptoms typically emerge before the age of three and can significantly impact a

child's development and functioning across the lifespan (Yadav, 2016). The prevalence of autism is typically higher in boys than in girls, with estimates suggesting a male-to-female ratio of approximately 4:1 (Dudová, 2022). In Pakistan, it is estimated that there are approximately 350,000 children with autism, and it is arguably the rising concern of the population health, and the urgent demand to identify and implement early intervention approaches specific to the local context (Ali & Arbab, 2021).

Anti-social behaviors in ASD may be in the form of explosive episodes of violence, tantrums without any provocation, or withdrawal state. These behaviors usually develop when there is overload of the senses or frustration because of lack of communication or inability to switch between activities or routines. Indicatively, the slightest interference to a routine may provoke aggressive tantrums or self-harm, especially among children who have problems expressing themselves or controlling their emotions Anti-social behavior in ASD can be attributed to a number of causes. Neuro-inflammation and oxidative stress have been considered biological factors associated with behavioral disturbances, indicating that behavioral disturbances might have physiological causes (Ruan et al., 2024).

The environmental triggers are also of utmost importance. These are over stimulating of the classrooms, absence of routine and the rejection by the society. Poor parenting or teacher support can also worsen the behavioral problems by not offering proper mechanisms of coping or reinforcing behavior. In turn, they may transform into chronic and have a devastating impact on the educational development and socialization of a child unless a timely intervention is provided (Yekini & Ademakin, 2017).

The consequences of untreated anti-social behavior in ASD are far reaching. Such children have the risks of being expelled out of school, experience caregiver stress, and social isolation. Such patterns can restrict their independence, employability and quality of life in the long run. In the case of teachers and therapies it is essential to comprehend the root causes of the behaviors and not only the surface ones to generate a successful intervention plan (Bodnar, 2020). Antisocial behaviors among children with ASD are multi-determined and complex phenomena, which manifest more profound challenges in the domains of cognition and neurology, as well as the environment. These behaviors need to be tackled in a comprehensive manner that includes early detection of the behaviors, behavioral programs and lifelong support programs (Bodnar, 2020).

In the mainstream and special education, teachers are at the forefront in early detection and support of children with Autism Spectrum Disorder (ASD). Being the main agents of the everyday learning and socialization, they tend to be one of the earliest to notice the behavioral issues and apply interventions to deal with anti-social behaviors. They not only have to do with academic teaching but also have to deal with communication deficits, social integration problems, and behavioral regulation issues (Abdullah & Karim, 2018).

Teaching requires expertise and sensitivity in the case of ASD. The disruptive behaviors that are very common among children on the spectrum are non- compliance, aggression, or withdrawal which necessitate special approaches. The teachers do not only control these behaviors but also strive to improve such skills as emotional control and peer interaction. Nevertheless, several educators claim that they are not ready to face them because they do not have necessary training in autism-specific intervention (Bekmurat & Autayeva, 2025; Saif & Fatima, 2025).

Anti-social behaviors are concepts that need to be dealt with effectively in children with Autism Spectrum Disorder (ASD) with a range of intervention strategies that should be based on the particular needs of the victim. The strategies will help to minimize disruption behaviors and improve social, emotional, and communicative functioning. Among them there are behavioral

interventions, cognitive- behavioral, social skills training, sensory integration therapy, classroom-based modification, and peer-mediated interventions (Alahmari et al., 2025).

Intervention strategies applied to manage the anti-social behaviors in children with Autism Spectrum Disorder (ASD) are successful depending on the approach taken, the nature of development of the child, and the context applied. Measuring the efficacy of such interventions is essential in informing the educators and caregivers to use evidence-based interventions that result in significant behavioral change (Abbasi et al., 2025; Saifuddin et al., 2025; Ganggayah et al., 2025).

Although the government has made efforts to increase special education services, it has been found that it is often delayed because of poor administration coordination and lack of funds. Although national policies are in favor of inclusion and early diagnosis, most frontline professionals particularly in remote locations do not have training and tools to implement these objectives. Thus, the task of using fragmented systems can be imposed on parents who in most cases have limited resources and knowledge of how to effectively use it (Abbasi et al., 2025; Saifuddin et al., 2025; Ganggayah et al., 2025).

The degree and nature of training has a great impact on the capability of a teacher to use evidence-based practices. Teachers that have attended special workshops or have a special education degree are considerably more confident and correct in providing such interventions like ABA or structured teaching methods. Research in Saudi Arabia has shown that educators who received no formal training in autism scored low in their knowledge and use of behavioral strategies, which clearly shows that there is a significant gap in the education of teachers (Khalil et al., 2020).

To conclude, the work with children with ASD in Punjab has to face considerable problems, such as the inequalities in the resources allocation, stigma, and the lack of infrastructures. Culturally sensitive practices and Urdu-based interventions combined with better training of teachers are essential to facilitate equitable and effective care based on the local realities. The holistic, collaborative, and theory-based approach to anti-social behaviors among children with ASD must address the needs of the child (in terms of their development) and the classroom setting. Teachers as day agents of learning and behavior-needs to be empowered by use of research-based training, resource support, and involvement of teachers in decision-making. Inclusion, equity, and sustainability of global evidence to local contexts are some of the priorities of future interventions that can greatly impact the community in the long-term perspective.

Research Methodology

Research Design

A quantitative and descriptive research design was adopted in this study in which a survey technique was conducted to determine the intervention strategies that teachers employ to manage antisocial behaviors among children with Autism Spectrum Disorder (ASD). The reason why the survey method was chosen is due to its ability to gather standardized information among the large populations and its cost-effectiveness, less bias in the researcher and convenience it provides to the respondents.

Research Population

The population of the research was teachers and other concerned professionals dealing with children with ASD in both government and private special education schools, autism resource centers, and speech therapy clinics in Punjab, Pakistan. Punjab was chosen because of the growing

demand of autism services both in the state and non-state sector, and it is an appropriate place to study intervention practices.

Sampling Technique and Sample

Simple random sampling method was used so that all members of the population had equal opportunity of being selected in the study. Through this process, a sample of 133 teachers and professionals was obtained in four randomly selected districts of Punjab in government and private institutions. The sample size was viewed to be sufficient in order to obtain highly reliable and generalizable outcomes as well as representation of various types of education setting.

Research Tool Development

The main data collection method was a questionnaire that was structured and close ended and was designed by the researcher. It was created based on a significant analysis of the literature on the topic and the interaction with specialists in the fields of special education, psychology, and behavioral sciences. The questionnaire had two parts. The initial part included demographic data including gender, age, academic and professional credentials, teaching experience regarding ASD, as well as ASD-related training experience. The second section was an evaluation of the behavioral, cognitive, and sensory-based intervention strategies. In this section, the items were rated on 5-point Likert scale that gauged agreement, frequency scale that ranged between never to always, and also a perceived effectiveness scale that ranged between not at all effective to extremely effective.

Validity and Reliability

A pilot study was performed on 30 children with autism in order to test the validity and reliability of the questionnaire using teachers (public and private schools and centers in Lahore). The pilot study made it possible to present the clarity and relevance of items. Cronbach alpha was determined to be 0.87 which shows a high internal consistency and therefore the tool is reliable in quantitative analysis.

Data Collection

The data collection process was done with formal permission of staff and other authorities. The researcher himself came to the chosen institutions and informed the residents about the goals of the research and the fact of voluntary participation. The respondents were informed that their anonymity and confidentiality was guaranteed. The administration of the questionnaires was performed in printed and electronic versions, based on the preference of the institutions, and gathered within a specific time, in order to receive all the answers collected in time.

Data Analysis

Statistical package of the social sciences version 26 was used to analyze the data. The demographic factors and the use of intervention strategies were summarized with the use of descriptive statistics including frequencies, percentages, means, and standard deviations. There were also tests of differences and relationships done using inferential statistics. They were independent samples t-tests to compare the difference between genders, and one-way Analysis of Variance(ANOVA) to test the influence of academic qualifications and teaching experience. The Pearson correlation analysis was conducted to determine the relations between agreement, frequency, and effectiveness of strategies, and cross tabulations were conducted to elaborate on the relation between demographic variables. All findings were refracted at a level of significance of 0.05 so that the findings would be accurate and rigorous.

Table 1: Frequency distribution of the Demographic Analysis

Category	Respondents	Frequency (f)	Percentage (%)
Gender			
	Male	58	43.61%
	Female	75	56.39%
Age Group			
	20–30 years	33	12.41%
	31–40 years	47	17.67%
	41–50 years	35	13.16%
	50+ years	18	6.77%
Academic Qualification			
	B.A/B.Sc.	22	8.27%
	M.A/M.Sc.	58	21.80%
	M.Phil.	42	15.79%
	Ph.D.	11	4.14%
Professional Qualification			
	B.Ed. (SPE)	51	19.17%
	M.Ed. (SPE)	38	14.29%
	Others	44	16.54%
Experience with ASD (Years)			
	01–05 years	39	14.66%
	06–10 years	46	17.29%
	11–15 years	28	10.53%
	16–20 years	20	7.52%
Professional Training in Managing Challenging Behavior			
	Yes	57	21.43%
	No	76	28.57%
Perceived Need for Training in Managing Challenging Behavior			
	Yes	108	40.60%
	No	25	9.40%

This table indicates that the majority of the respondents were women and possessed postgraduate or professional degree in special education and the teaching experience was broadly spread among the age groups. Although 43% of them indicated that they had some previous training on the issues of managing challenging behaviors, more than 80 percent of them identified the necessity of further training, which demonstrates a significant gap in the professional development of educators who deal with children with ASD.

Table 2: Descriptive Statistics of Main Constructs

Construct	Mean	Std. Deviation
Behavioral Strategies	3.55	1.15
Cognitive Strategies	3.75	1.12
Sensory Strategies	3.41	1.14

The descriptive analysis revealed that teachers indicated high use of cognitive (M = 3.75), behavioral (M = 3.55) and sensory-based strategies (M = 3.41). This trend indicates that all strategy areas are used, but cognitive and behavioral ones are especially prominent in managing students with ASD in the classroom.

Graphical Representation of the Main Constructs

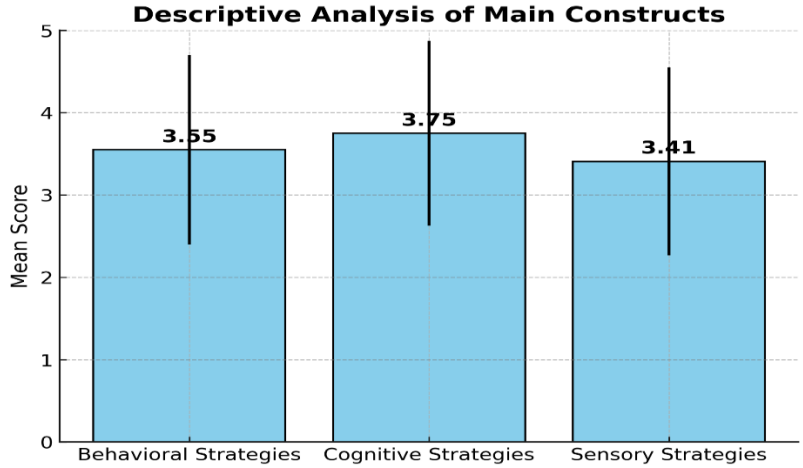

Table 3: Cross-tabulation of Gender with Demographic Variables (n = 133)

Variable	Category	Male	Female
Academic Qualification	B.A/B.Sc	10	12
	M.A/M.Sc	25	33
	M.Phil.	18	24
	Ph.D	5	6
Professional Qualification	B.Ed. SPE	20	28
	M.Ed. SPE	30	35
	Others	8	12
Age Group	20–30	15	18
	31–40	20	30
	41–50	15	20
	50+	8	7
Experience with ASD (years)	01–05	15	20
	06–10	20	30
	11–15	13	15
	16–20	10	10
Training	Have Training	30	40
	Need Training	32	37

This cross-tabulation analysis found significant patterns of gender among teachers who were involved with the children with Autism Spectrum Disorder (ASD). Educating women resulted in

higher academic qualification and a small but significant representation of higher academic degree at the M.Phil. and Ph.D. degree and an increased enrollment to graduate level courses M.Ed. Males however had a little higher representation in the B.Ed. level. Female teachers also had a more focus on the younger age groups indicating a growing influence of the women in the field in recent years. There was no great difference in professional experience between genders but in the 6-10 and 11-15 years, females slightly dominated over males. Noteworthy, more females documented previous professional training but there was almost an equivalent need of both genders to get additional chances of training. On the whole, the findings suggest the gender and gender equality of ASD education; females exhibit a bit higher academic achievement and professional growth. The findings indicate that it is necessary to implement gender-sensitive capacity-building programs, which would take into account the evolving training needs of all educators.

Table 4: Pearson Correlation Matrix Among Agreement, Frequency, and Effectiveness of Intervention Strategies (N = 133)

Variables	Agreement	Frequency	Effectiveness
Agreement	1.00	0.11	0.01
Frequency	0.11	1.00	-0.12
Effectiveness	0.01	-0.12	1.00

The results of correlation showed weak agreements, frequency use, and perceived efficacy of intervention strategies by teachers. This means that the zeal of certain strategies does not necessarily correlate to a lot of application and perceived efficiency and this is what makes it hard to translate beliefs to practicability in the classroom.

Table 5: Independent Samples t-Test between Male and Female Teachers regarding the Use of Intervention Strategies.

Strategy	Male	Female	t-value	p-value
Behavioral	3.11	3.55	-5.25	0.0000
Cognitive	3.40	3.75	-3.48	0.0007
Sensory	3.11	3.41	-4.61	0.0000

Behavioral, cognitive and sensory intervention strategies were reported to have statistically significant difference with female teachers being higher than males in all categories ($p < 0.001$). This is a sign of gender variations in adoption of strategies that could be attributed to variations in training, occupations or teaching techniques.

Table 6: Comparison of means (ANOVA) The academic qualification of Teachers and the use of intervention strategies (n = 133).

Strategy	F-Value
Behavioral	35.87
Cognitive	33.12
Sensory	18.38

Analysis of variance revealed that there were significant effects of the academic qualification on the intervention strategies. The teachers with higher academic qualifications (M.Phil./Ph.D.) explained the more positive attitude towards behavioral, cognitive and sensory strategies and this aspect highlighted the positive influence of higher education in the extent and compliance of interventions.

Table 7: One-Way ANOVA Summary Based on Teaching Experience for Behavioral, Cognitive, and Sensory Strategies

Strategy	F-Value	p-Value
Behavioral	25.91	0.016
Cognitive	17.69	0.106
Sensory	33.17	0.004

This table shows that years of teaching experience had a significant influence on the use of all types of a strategy. More advanced teachers also indicated that they employed more behavioral, cognitive and sensory interventions ($p < 0.05$) which shows that experience is one of the key issues in effective intervention and classroom management of children with ASD.

Findings

The study findings bring out vital trends of intervention strategies employed by teachers when managing antisocial behaviors among children with Autism Spectrum Disorder (ASD). Most of the respondents were females (56.39) and also most of them had postgraduate qualification with a high percentage also having special education training. Distribution of teaching experience was not skewed, however, educators who had 6-10 years of service constituted the majority subgroup. Although 43 per cent of the participants reported that they had already been trained on the issue of behavior management, more than 80 per cent still reported that they needed to be trained more professionally, an indication that there is a significant skills gap to meet the ASD-related challenges.

Regarding the adoption of the strategy, behavioral strategies like positive reinforcement ($M = 4.02$) and a token economy system ($M = 3.74$) were the most commonly used and highly rated in effectiveness. Cognitive strategies, such as the utilization of the structured routines ($M = 3.59$), visual aids ($M = 3.86$), and training social skills ($M = 3.53$) were also popular, and more moderate were sensory-based strategies, such as physical activities ($M = 3.55$) and mindfulness exercises ($M = 3.45$). Nevertheless, weighted blankets and other special sensory tools were less common and seen as less effective ($M = 2.96$). The types of positive reinforcement, routine, and visual support were found to be the most effective intervention strategies across all categories, with advanced interventions such as restorative practices, cognitive-behavioral therapy (CBT), and sensory integration techniques rarely applied, probably because of the lack of training opportunities and limited resources.

The results also indicated that there were some important demographic factors that affected the intervention practices. Women teachers said they used more behavioral, cognitive and sensory strategies than their male colleagues ($p < 0.001$). Equally, there was a significant increased adoption and implementation fidelity among teachers with high academic qualification (M.Phil./Ph.D.) and teachers with increased teaching experience on all types of strategies. ANOVA established that education and experience had statistically significant effect ($p < 0.001$) and it was in the context of professional background that effective classroom practices were shaped. However, the correlation analysis revealed very weak relationships between teacher agreement with strategies, their real frequency of use and perceived effectiveness. This implies that educators are positive towards the use of evidence-based interventions, but these perceptions do not necessarily lead to regular or effective practice in the classroom.

Discussions

This study set out to examine the intervention strategies employed by teachers in Punjab, Pakistan, to manage anti-social behaviors among children with Autism Spectrum Disorder (ASD). The analysis focused on behavioral, cognitive, and sensory-based interventions while accounting for demographic influences such as gender, qualification, and teaching experience. On the whole, the results indicate the pivotal importance of teacher-based interventions in determining the academic achievement and behavioral stability of children with ASD.

The descriptive results also indicated that the most commonly used and the best rated of the behavioral strategies by the teachers in terms of their effectiveness in controlling aggressive and non-compliant behavior is positive reinforcement. It aligns with the literature available globally, where Applied Behavior Analysis (ABA) and reinforcement- based methods are the core of ASD intervention strategies. As an example, Zhang et al. (2022) pointed out the structured reinforcement protocols proposed by ABA that proved useful in boosting compliance and lowering the level of aggression in children diagnosed with ASD. These prior studies are further supported in our research as a relatively high utilization and favorable attitude to token economy systems and ABA were found.

The inferential statistics outcomes support the demographic factors in influencing the adoption of the strategy. In a t-test conducted between male and female teachers, it was found that the usage and perceived effectiveness of all types of strategy were statistically significant with females scoring well in general. This corresponds with Ilustrisimo and Lopez (2009), who observed that the female teachers tend to be more occupied in child related jobs because of gender norms, which might affect their training and sensitivity towards inclusive practices. The results also demonstrate that gender-sensitive teacher training initiatives should be provided to make sure behavioral management skills become equally distributed among the teachers of both genders.

In addition to this, ANOVA tests showed a significant difference in the use of strategies according to academic qualification and experience in teaching. The teachers, who had higher academic degrees (e.g., M. Phil. and Ph.D.), had a much bigger probability of using more evidence-based strategies. This corroborates other previous researchers like Leonard and Smyth (2020) who indicated that high educational levels had a positive relationship with the use of specific teaching practices. On the same note, senior teachers (10 years or more of service) were found to use all types of strategies much more often, which supports the results of Pervin (2020), who noted that years of direct work with ASD students are a key indicator of confidence and competence in the application of strategies.

The most remarkable discoveries were the high trainee gap indicated in the responses. Although the percentage of teachers who had undergone professional training on how to handle difficult behavior was 21.43% the percentage indicating that teachers would prefer to undergo further professional training was 40.60%. It is reminiscent of studies by Troshanska et al. (2019) and Khalil et al. (2020), who observed that the lack of awareness of formal training programs among teachers is one of the primary obstacles to successfully integrating children with ASD. The existing results are directed to the necessity of professional development efforts in Pakistan that are organized and locally specific and do not only involve theoretical education but also practical coaching in the classroom.

Lastly, Pearson correlation matrix of agreement, frequency and perceived effectiveness of strategies produced weak relationships, indicating that beliefs alone in teachers do not substantially predict the practice or outcomes. It confirms Iovannone and Anderson (2022) who claim that the

practical application of behavioral interventions usually requires institutional culture, classroom dynamics, and administrative assistance, rather than personal faith in a strategy.

Overall, the summary of this paper validates and builds on previous research in the world but highlights the situational realities of teachers in Punjab. The application of basic behavioral strategies is well aligned with the evidence of teachers all over the world but there are some barriers to the use of interventions which can be more advanced or collaborative. Gender, qualification, experience, and training exposure are some of the factors that greatly determine the depth and breadth of strategy use. The paper highlights the importance of investing in teacher training, policy, and classroom resources to facilitate effective and inclusive management of the anti- social behaviors of children with ASD in Pakistan.

Conclusion

This paper has examined the intervention methods used by educators to control antisocial behaviors among Autistic Spectrum Disorder (ASD) children in Punjab, Pakistan. The results indicated that the most common types of evidence-based practices that teachers adopted were positive reinforcement, visual supports, and structured routines, which were perceived to be effective in enhancing classroom participation and preventing aggressive behaviors and non-compliance. The demographics of the teachers also contributed to a high extent because more qualified teachers who had a longer duration of professional experience and had undergone specialized training reported more frequent and effective strategies.

However, other factors such as shortage of resources, large student numbers in a classroom, and training opportunities made the regular engagement more difficult and this posed questions on their ability to continue this in low-resource classrooms. The study cites that the training of professionals, the appropriate institutional support, and the engagement of parents more are needed to make the behavioral interventions successful. Overall, the findings can be used to emphasize the idea that the treatment of the ASD-related behaviors is a system-wide phenomenon and not a teacher-only phenomenon and the allocation of funding in training, materials, and working with the families should be the key to developing inclusive, supportive, and effective learning environments.

Recommendations

Two recommendations based on the findings of this study include:

1. The professional development workshops are supposed to be held regularly in order to equip the teachers with evidence-based behavioral, cognitive and sensory strategies that will enable them to address the antisocial behaviors in children with ASD.
2. The use of Structured Discrete Trial Training (DTT), which is made easier through the Applied Behavior Analysis (ABA) principles, should be promoted in classrooms to build communication and social skills in a step-by-step fashion and with the help of rewards.

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