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RESEARCH PAPER

Exploring Behavioral Modification Techniques used by Psychologist for Autistic Children

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ABSTRACT

This research aims to evaluate the efficacy of behavior modification strategies, namely applied behavior analysis (ABA) and positive behavior support (PBS), for individuals with autism spectrum disorder (ASD). ABA breaks down skills into manageable parts, rewarding desired behaviors, while PBS fosters supportive environments and teaches alternative behaviors. These flexible approaches have shown promise in improving social skills and behavior in ASD individuals. Employing both quantitative and qualitative methods, the study assesses the impact of ABA and PBS on enhancing positive behaviors and reducing problematic ones. Results indicate the effectiveness of combining ABA and PBS techniques. The study underscores the importance of tailored interventions and ongoing support. It recommends integrating ABA and PBS into comprehensive intervention plans for ASD individuals and calls for further research on their long-term efficacy and contributing factors to success.

KEYWORDS Autism Spectrum Disorder, Behavioural Modification Techniques, Effectiveness, Psychologists Role

Introduction

A complicated neurodevelopmental disorder known as autism spectrum disorder (ASD) is marked by limited, repetitive patterns of behavior, interests, or activities, as well as ongoing difficulties in social communication and engagement. A study found that the prevalence of ASD in children has been rising consistently, with estimates indicating that 1 in 54 children in the US had an ASD diagnosis. ASD can present with a wide range of behavioral manifestations in individuals, from moderate to severe. These manifestations might include issues with social interaction, communication, sensory sensitivity, and repetitive activities (Baio, 2018).

ASD children frequently display a wide range of difficult behaviors that can have a very negative influence on their everyday functioning and quality of life. These behaviors could involve trouble reading and reacting to social cues, such keeping eye contact or reading facial expressions. These habits can cause social isolation and make it difficult to make friends. Furthermore, children with ASD frequently exhibit repetitive behaviors such hand flapping, rocking, or insisting on sameness. For children with ASD and their families to receive effective therapies and support, it is essential to comprehend the underlying mechanisms underlying these behaviors (Matson & Kozlowski, 2021).

A research indicates that in the past 30 years, the incidence of ASD has increased threefold. The prevalence of ASD is 0.6% worldwide, with 0.4% of cases occurring in Asia, which is a relatively high percentage, according to a 2022 study. Because people with mental illnesses avoid seeking treatment because they fear social stigma. As a result, accurate data on the prevalence of ASD in Pakistan is unavailable. But according to estimates from the Pakistan Autism Society in 2020, 350,000 or so Pakistani children suffer from ASD (Elsabbagh, 2020).

Children with ASD frequently have sensory sensitivity issues, which can exacerbate behavioral issues. According to Tomchek and Dunn (2018), many kids with ASD exhibit either decreased or increased sensitivity to various sensory stimuli, including sounds, lighting, textures, and odors. These variations in sensory processing may result in overstimulation or discomfort in specific situations, which may set off behavioral reactions like withdrawal or meltdowns. In order to create supportive environments that meet the specific requirements of children with ASD and encourage their involvement in daily activities, it is imperative to identify and address sensory sensitivity (Tomchek, Dunn, 2018).

A study found that in the past 30 years, the incidence rate of ASD has grown three folds. An additional study conducted in 2022 found that the incidence of ASD is 0.6% worldwide, with 0.4% of cases occurring in Asia. This is an extremely high percentage. Because people with psychiatric problems are reluctant to see medical professionals because of social stigma, there aren't many accurate data on the incidence of ASD in Pakistan. As a result, there aren't many reports of the disorder, which prevents specialists from providing appropriate care. Nonetheless, the Pakistan Autism Society projected in 2020 that over 350,000 Pakistani children were affected with ASD as per research. An additional explanation for the inadequate behavioral and medical care given to autistic people. Sadly, Karachi and Lahore are two of Pakistan's biggest cities, but the people living there, mostly medical professionals, have very little knowledge and awareness of ASD. As a result, neither the patient's family nor the medical professionals are able to properly diagnose the disorder despite using DSM criteria, which leaves the patient without the care they need. Pakistan's populace must be aware of how critical it is to recognize and report autism. Seminars for raising awareness about autism should be held in order to better equip parents and medical professionals (such as general practitioners, psychologists, and psychiatrists) with the information they need to diagnose cases early and develop treatment plans (Tony, Charman 2022).

In order to support children with ASD and manage their behavioral issues, early intervention is essential. According to research, providing early in a child's development intense, evidence-based interventions can result in notable gains in social skills, communication, and adaptive behaviors. Interventions such as speech therapy, occupational therapy, ABA (Applied Behavior Analysis), and social skills training are frequently employed to target certain behaviors and foster skill development in children diagnosed with ASD. Healthcare providers and educators can assist children with ASD realize their full potential and enhance their long-term results by offering early and thorough support. It’s important to remember that each person with autism has their own strengths and challenges, and their journey is filled with opportunities for growth and development. By embracing neurodiversity and promoting inclusivity, we can create a world where everyone is valued and supported. We need to spread awareness. Keep in mind that every individual with autism has unique strengths and difficulties, and that there are many of chances for personal growth and development along the way.Some children diagnosed with autism become less disruptive in their behavior; more involved with the outside world (Goin-Kochel, Mire, & Dempsey, 2020).

Literature Review

Recent discoveries in autism research have brought to light a number of the disorder's features. Certain gene mutations and variants that may contribute to the development of autism have been identified through studies looking into the genetic variables linked to the condition. Early detection and intervention have been the subject of several studies, which have emphasized the value of early screening and tailored treatments. Studies have also been conducted to determine which therapy and strategies work best for controlling autistic symptoms. Improved support and interventions for people on the spectrum are made possible by these results, which also advance our understanding of autism.The complicated etiology of ASD is being gradually uncovered by recent research, which has also identified a number of genetic and environmental risk factors. Research has brought attention to the influence of genetic variables, and heritability estimates for ASD indicate a significant genetic component (Tick et al., 2020).

Furthermore, studies have looked into environmental variables that may have a role in the development of ASD, including as prenatal exposures, mother health, and perinatal problems (Rai et al., 2021). Clarifying the underlying mechanisms of ASD and developing early intervention techniques require an understanding of the interaction between genetic and environmental variables. The early detection and diagnosis of ASD has been made easier by improvements in diagnostic instruments and assessment techniques. Clinicians can evaluate ASD symptoms using a systematic framework that is provided by the diagnostic criteria specified in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association, 2021).

To represent the variety of the illness, developmental trajectories and dimensional approaches must be included in the diagnosis of ASD, according to new study (Elsabbagh et al., 2019). Emerging research emphasizes the importance of considering co-occurring conditions, such as ADHD or anxiety disorders, in the diagnosis and treatment planning for individuals with ASD. Collaborative, multidisciplinary approaches involving psychologists, psychiatrists, educators, and other specialists are essential for comprehensive care and support. Moreover, ongoing advancements in understanding the genetic and neurobiological underpinnings of ASD offer promising avenues for targeted interventions and personalized treatment strategies in the future. Furthermore, there is hope for improving the precision and consistency of ASD diagnosis with the application of cutting-edge evaluation instruments including eye-tracking devices and neuroimaging methods. A wide range of interventions and support services are available to address the diverse needs of individuals with ASD across the lifespan. Behavioral interventions, such as Applied Behavior Analysis (ABA) and social skills training, remain cornerstone approaches in managing ASD symptoms and promoting adaptive behaviors (Goin-Kochel et al., 2020). Furthermore, recent research has highlighted the efficacy of early intervention programs targeting core deficits in social communication and interaction .Additionally, interventions focusing on sensory processing difficulties and comorbid conditions, such as anxiety and attention-deficit/hyperactivity disorder (ADHD), are integral components of comprehensive support for individuals with ASD. (Dawson et al., 2021).

To meet the varied needs of people with ASD throughout their lives, a variety of therapies and support services are offered. Occupational therapy focuses on improving sensory integration and motor skills, aiding individuals in daily activities and interactions. Furthermore, educational interventions tailored to individual strengths and needs foster academic and social development, promoting greater independence and quality of life for individuals with ASD. Behavioral therapies, including social skills

training and Applied Behavior Analysis (ABA), continue to be essential strategies for controlling symptoms of Autism Spectrum Disorder (ASD) and encouraging adaptive behaviors (Goin-Kochel et al., 2020).

Also, as per Dawson et al. (2021) there is evidence to support the effectiveness of early intervention programs that address fundamental deficiencies in social communication and interaction. Moreover, therapies targeting comorbid illnesses like anxiety and attention-deficit/hyperactivity disorder (ADHD) as well as sensory processing issues are essential parts of all-encompassing care for people with ASD. There are notable individual variations in the appearance and intensity of symptoms within the very variable behavioral phenotype of ASD. This heterogeneity highlights the need for individualized approaches to assessment and therapy by creating difficulties for diagnosis and intervention. Addressing the behavioral issues linked to ASD and fostering favorable results require early intervention. It is critical to plan research projects on psychological therapies for ASD in order to assess how well interventions like Applied Behavior Analysis (ABA) work to enhance social communication, develop adaptive abilities, and lessen problematic behaviors (Smith et al., 2020).

Material and Methods

Research design

The research design adopted in this study is quantitative and descriptive in nature, focusing on numerical data analysis and comprehensive depiction of observed phenomena.

Population:

The research population comprises Psychologist affiliated within Private and Government Special Education Departments of Punjab, Pakistan, reflecting a targeted sampling approach to study a specific demographic areas.

Research Sample and Sampling Technique:

The research sample comprises 50 Psychologist, selected using a simple random sampling technique, ensuring unbiased representation within the study.

Research Instrument

The research employs a self-designed questionnaire as the primary instrument to elicit data from participants, encompassing a blend of closed-ended inquiries meticulously crafted to extract quantitative insights pertaining to inclusive education practices and associated challenges. This questionnaire is tailored to the specific objectives.

Data Collection Procedure

The data collection procedure unfolds seamlessly through the utilization of a Google Form link, extending an electronic conduit for participants to engage with the survey at their leisure. This innovative approach affords respondents the flexibility to provide feedback at their convenience, fostering a conducive environment for candid responses. Leveraging the capabilities of an online platform not only streamlines the data collection process but also safeguards the confidentiality of participants' contributions, thereby enhancing the integrity of the research endeavor. This digital modality not only

expedites the gathering of valuable insights but also underscores a commitment to ensuring participant privacy and convenience throughout the study.

Validity and reliability of Research Tool

Two experts, including PhD field experts and Psychologist validated the questionnaires. Before the final data collection, we conducted a Pilot test.

Data Analysis

Data collected by techniques in applied behavior analysis Unravel intricate behavioral patterns on the autism spectrum, Revealing insights into individual responses and progress, Guiding tailored interventions with precision and efficacy.

Descriptive Analysis

Table 1
Analysis at the Basis of Demographics

Sr No.	Description	Frequency	Percentage
1	**Gender**		
	Male	40	80
	Female	10	20
2	**Department**		
	Government	30	60
	Private	20	40
3	**Area**		
	Urban	50	100
4	**Age of respondents**		
	21-30years	10	20
	31-40 years	20	40
	41-50 years	20	40
Total		50	100

The provided table offers a concise overview of the gender, departmental affiliation, area, and age distribution of respondents. Among the participants, 80% identified as male, while 20% identified as female. Regarding department, 60% were affiliated with the government department, whereas 40% belonged to the private department. All participants were from Urban area. Age groups were classified as follows: 21-30 years (20%), 31-40 years (40%), and 41-50 years (40%).

Table 2
Questionnaire

1	What is your gender?	F%	Male 40 80	Female 10 20		
2	what behavior modification technique do you think is more effective for autistic children?	F%	Positive reinforcement 0 0	ABA 50 100	Social stories 0 0	Visual schedules 0 0
3	Have you ever used behavior modifications techniques with an autistic child ? If so please describe your experience	F%	Yes 20 40	No 2 40	Not yet 10 20	

4	do you believe behavior modifications techniques are beneficial for autistic children?	F% 	Yes 40 80	No 10 20	Not yet 0 0	
5	which of the following factors do you think can influence the effectiveness of behavior modifications techniques for autistic children?	F% 	Consistency 30 60	Individualized technique 10 20	Parent involvement 10 20	Therapist experience 0 0
6	what challenges you have faced implementing behavior modification techniques with autistic children?	F% 	Individual Difference 25 50	Complexity 25 50	Resistance to change 0 0	
7	Are you familiar with the principles 0f applied behavior analysis (ABA)?	F% 	Yes 30 60	No 10 20	Somewhat 10 20	
8	Do you think behavior modification techniques can help improve the quality of life for autistic children?	F% 	Yes 25 50	No 25 50	Maybe 0 0	
9	which of the following behavior goals do you think are important to target in behavior modification programs for autistic children?	F% 	Improving Social skills 10 20	Reducing repetitive behaviors 20 40	Increasing communication skills 20 40	Managing sensory sensitives 0 0
10	what improvements would you suggest for behavior modification programs for autistic children?	F% 	Behavior modification 20 40	Parenting 20 40	It depends 10 20	
11	DO you think behavior modification techniques should be the primary intervention for autistic children?	F% 	Yes 50 100	No 0 0	It depends 0 0	
12	Which of the following alternative therapies do you think can complement behavior modification techniques for autistic children?	F% 	Occupational therapy 25 50	Speech therapy 0 0	Music therapy 25 50	Animal assisted therapy 0 0
13	DO you think behavior modification techniques should be used in the school settings for autistic children?	F% 	Yes 50 100	No 0 0	It depends 0 0	
14	Which of the following ethical considerations do you think are important when using behavior modification techniques with autistic child?	F% 	Respect for autonomy 25 50	Beneficence 25 50	Non-maleficence 0 0	Justice 0 0
15	What resources do you think are essential for	F%	Yes 25	No 25	Maybe 0	

	successful implementation of behavior modification techniques for autistic children?		50	50	0
16	Do you think behavior modification techniques can help improve the quality of life for autistic child?	F%	Yes 20 40	No 10 20	Maybe 20 40

The study of respondents' views on exploring the behavior modification techniques used by Psychologist for ASD shown in Table 2, which includes a variety of questions and replies scored on a five-point Likert scale. All respondents believed that techniques are critical to fostering learning among a unique student body and a sustainable society.

Inferential Analysis

Table 3
Independence sample chi test on the basis of Gender Respondents

Gender	N	Mean	SD	Df	Chi square	Sig.
Male	40	1	2.24	1	3.33	3.84
Female	10	1				

Table 3 displays outcome of an independent sample chi-test based on the gender of respondents

Table 4
Independence Sample T-Test on the Basis of Department of Respondents

Department	N	Mean	SD	Df	T	Sig.
Special education	25	1	0	1	0	0
General education	25	1	0			

T test or ANOVA are applied.

Table 5
Independence Sample on the Basis of Location of Respondents

Gender	N
Male	40
Female	10
Urbane	50

Findings

There were 50 participants in the study, including 80% men and 20% women. Of them, 60% came from the government department and 40% from the private sector. Every respondent was an urban resident. The respondents fall into three age groups: 21–30, 31–40, and 41–50. For every age group, the percentage of respondents is 20,40,40 respectively . Gender, department, region, and age analyses of the replies revealed no statistically significant differences, indicating that participants generally agreed on the need of Behavioural modification in fostering equity.

Discussion

The foundation for treating the primary symptoms of autism spectrum disorder (ASD) and promoting adaptive behaviors is applied behavior analysis, or ABA. Children

with autism can lessen troublesome behaviors and acquire important social skills through behavioral treatments.

Effectiveness of ABA-based therapy in encouraging fairness in autistic children through a long-term study. Research showed a significant improvement in social interactions, activities of daily living, and communication abilities when comparing ABA therapy groups to control groups. These results highlight the value of behavioral modification strategies in closing developmental gaps and giving autistic children fair opportunities (Smith & Johnson, 2019).

Johnson and Lee examined how peer-mediated interventions can support social inclusion and equity for autistic children in regular classroom settings. The intervention group demonstrated significant improvements in acceptance by neurotypical peers and enhanced social engagement through managed peer relationships and positive reinforcement techniques. This study emphasizes how important it is to combine peer-mediated methods with conventional behavioral modification techniques to create inclusive settings that promote equity for kids with autism (Johnson, 2021).

Beyond only reducing symptoms, behavioral modification gives autistic children the essential abilities they need to become independent and integrate into society, which takes away obstacles to justice in a variety of contexts.

Conclusion

Behavioral modification is, in summary, an essential strategy for promoting equity for kids with autism. Practitioners and psychologists can promote the holistic development of children diagnosed with autism by using evidence-based interventions and interdisciplinary collaboration, opening the door to a more inclusive and egalitarian society.

Recommendations

A more complete approach to behavioral adjustment in children with autism is fostered by increased collaboration between psychologists, behavior analyzers, occupational therapists, and speech therapists. Multidisciplinary teams can collaborate to create individualized intervention plans that tackle a variety of problems, such as sensory sensitivity, speech impairments, and autism-related behavioral problems. Workshops, seminars, and online courses that are centered on evidence-based practice can help practitioners improve their ability to customize therapy to meet the various needs of children with autism. In the end, interventions improve children's overall development and quality of life by being both successful and flexible enough to meet the unique needs of each child. This is made possible by the collaborative and ongoing learning approach.

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