Practice

Creating Supportive Educational Environments for Students with Autism in Pakistan

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Abstract

Children with autism in Pakistan face significant barriers to equitable education, including limited awareness, delayed diagnosis, lack of specialized teacher training, and minimal use of proven instructional strategies (Kamran & Bano, 2023; Salman et al., 2024). This paper examines these systemic challenges while proposing actionable, culturally responsive solutions grounded in global best practices. Drawing on 28 Evidence-Based Practices (EBPs) and 22 High-Leverage Practices (HLPs), the authors outline strategies that have been shown to improve outcomes for students with autism and are adaptable for the Pakistani context (Aceves & Kennedy, 2024; Steinbrenner et al., 2020). Tools such as visual supports, explicit instruction, and peer-mediated learning are highlighted for their scalability and alignment with local teaching practices and values (Aceves & Kennedy, 2024). The role of families is central; caregiver-led strategies, community advocacy, and participation in freely available training from Autism Focused Intervention Resources and modules (AFIRM), Autism Internet Modules (AIM), and the Council for Exceptional Children offer accessible resources for change (Ali et al., 2024; Steinbrenner et al., 2019). The article calls for coordinated policy action that includes early identification, educator preparation, and cross-sector collaboration. Grounded in Islamic principles of compassion, equity, and respect for difference, inclusive education for children with autism is framed not as an ideal, but as an achievable goal, made possible by collective commitment and practical steps forward.

Keywords: autism; Pakistan; inclusive education; teacher training; early intervention; evidence-based practice; high-leverage practice

Note: It is important to note that the authors have purposefully used person-first language (e.g., student with autism, individual with autism) throughout this manuscript. This article models person-first language for educators as a way to remind them that the disability is one part of who the student is and that students are more than the disability label. With this stated, the authors always encourage educators to respect all language preferences shared by students and/or their families.

Introduction

Autism is a neurodevelopmental disorder that impacts communication abilities and behavioral responses while altering sensory information processing and includes repetitive behavioral patterns or focused interests. The onset of symptoms typically occurs during early childhood, and they disrupt daily life without being attributable to any specific diagnosis (American Psychiatric Association, 2022). The recent Center for Disease Control's surveillance report indicated that approximately 32 of every 1,000 eight-year-olds in the United States have autism (about 1:31). They are mostly boys and historically underdiagnosed in racial and ethnic groups but the latest data show that minority groups now have higher reported prevalence than White children (Shaw et al., 2025). The World Health Organization (2025) statistics show worldwide prevalence to be about 1 in 127 people. The prevalence of autism in Pakistan is unknown. One study found that 1.4% of children met the criteria for autism, but the number is likely underestimated because of low awareness and limited

screening and diagnostic tools (Hossain et al., 2020). Other research suggests a prevalence of 1:150 in Pakistan (Bashir et al., 2024; Syed & Hussein, 2020). The higher rates of autism in the United States are likely a result of data collection systems and do not necessarily mean there are more people with autism in the United States (Shaw et al., 2025; World Health Organization, 2025). Zeidan et al.'s (2022) findings supported this conclusion. The authors conducted a systematic review to update global estimates of autism prevalence, revealing that most data come from high-income countries, while low- and middle-income countries (LMICs), including Pakistan, are likely underrepresented, which may be due to gaps in surveillance systems, trained professionals, and diagnostic resources.

Pakistan's national government provides some education funding, but much of it comes from provincial or local sources. While Pakistan is trying to improve access to inclusive education, limited public funding makes it hard for schools, especially in low-income areas, to support students with disabilities. The United Nations recommends 4%–6% for developing countries (United Nations Educational, Scientific and Cultural Organization, 2024). In 2023, Pakistan allocated 1.9% of its GDP to education (World Bank, 2025). The main educational institutes in Pakistan serve most of their children but struggle with financial and operational difficulties. As is the case with educational funding resources worldwide, schools in poorer geographical areas often receive fewer resources. While Pakistan is trying to improve access to education, limited public funding makes it hard for schools, especially in low-income areas, to support students with disabilities.

National policies and legislation, combined with Non-Governmental Organization (NGO) partnerships, work to enhance educational opportunities for children with disabilities. The Directorate General of Special Education manages learning support, assessment services, and vocational training programs under government coordination with support from the National Institute of Special Education (Government of Pakistan, 2006). The National Policy for Persons with Disabilities (Pakistan Ministry of Social Welfare and Special Education, 2002), the Inclusion Strategy (Government of Pakistan, 2006), the National Education Policy (Government of Pakistan, 2017), and provincial laws such as Sindh's 2018 legislation (The Sindh Empowerment of Persons with Disabilities Act, 2018) provide the legal framework. Demonstrate an expanding dedication to inclusive practices. However, challenges remain. Public funding shortages in low-income and rural areas can impact the availability of trained teachers, educational resources, and inclusive learning environments. Most specialized schools are located in urban areas, which can be an accessibility problem for families. Students with autism face unique challenges due to limited opportunities for training for teachers and parents, combined with minimal public understanding of their needs (Kamran & Bano, 2023). The purpose of this paper is to highlight educational challenges for students with autism in Pakistan and share information on evidence-based practices that schools and caregivers can readily implement in varied settings to benefit students with autism as well as their neurotypical peers. Our goal is to share practical strategies to improve educational access, more inclusive support systems, and long-term outcomes for students with autism.

Educational Context in Pakistan

Pakistan's educational system includes public schools, private schools, madrassas (Islamic religious schools), as well as a limited number of specialized centers. The education system teaches students from diverse economic and cultural backgrounds through institutions that differ greatly in curriculum and teaching methods. Some schools adhere to the national curriculum, and others adopt educational programs such as Cambridge or the International Baccalaureate. The range of educational programs does not consistently support students who require additional assistance, which can result in low enrollment, high dropout rates, and limited future opportunities for children with disabilities (Pirzada et al., 2024). About 31% of students with disabilities in Pakistan have received formal education, with girls experiencing the greatest challenges. Students with disabilities enrolled in school often have difficulties in mastering basic reading and math abilities. The majority of public educational institutions operate as distinct schools for boys and girls. The division of educational institutions by gender creates disparities in how students receive special education assistance and trained staff support, as well as physical infrastructure accommodations like ramps, as only 31% of schools for girls include ramps (ASER Pakistan, 2024). The lack of training for teachers to support students with disabilities is a real challenge in inclusive classrooms (Kamran & Bano, 2023). Teachers located in rural or economically disadvantaged areas often have low wages and delayed payments, which can impact recruitment and retention among educators (Pirzada et al., 2024).

Early Identification and Intervention

A barrier for many families is early diagnosis and intervention. Many caregivers and pediatricians are unaware of the early signs of autism or the connection to more positive long-term outcomes with early intervention, which may lead to delays in seeking diagnosis. As is the case with other countries on the Indian subcontinent, pediatric examinations typically do not assess developmental issues related to neurodevelopmental conditions (Taufiq & Mckeithan, 2024). Pakistan currently does not have a common screening tool that is used extensively to detect autism, so diagnosis may be delayed or missed entirely. Diagnostic delays keep children from getting early intervention services that improve long-term outcomes (Salman et al., 2024). When a diagnosis is obtained, access to supports may be difficult as there is a shortage of autism specialists. Therapeutic services such as Applied Behavior Analysis, speech therapy, and occupational therapy are difficult to access in rural areas. Schools do not cover the costs, which makes them expensive for families (Ali et al., 2024; Pirzada et al., 2024).

Special Education Services

Teacher preparation programs in Pakistan have consistently sought to improve their support for students with disabilities. Universities offer special education degrees that equip graduates with basic knowledge about disability awareness, instructional strategies, and classroom management. However, many programs focus on theories rather than the practical application of EBPs and lack autism-specific training, which can adversely impact preparation for real-world classroom challenges (Aftab et al., 2024; Bashir et al., 2024; Salman et al., 2024). Special education centers operated by provincial departments are the educational setting for most students with disabilities rather than inclusive public schools (Bashir et al., 2024). Pakistan has an overarching policy framework for special education and disability. Policies like the National Policy for Persons with Disabilities (Pakistan Ministry of Social Welfare and Special Education, 2002) and the Punjab Special Education Act exist, but implementation is inconsistent. Without Individualized Education Plans (IEPs) teachers may not prioritize modifying and individualizing instruction (Bashir et al., 2024; Government of Punjab, 2020).

General Education Services

General education teachers may not be trained in inclusive practices (Aftab et al., 2024; ASER Pakistan, 2024). Students with autism often face inadequate support as general education teachers may not know how to support them (Kamran & Bano, 2023; Steinbrenner & Odom, 2025). Teachers without training might see autism-related behaviors as disciplinary problems instead of recognizing them as communication challenges or sensory processing issues (Kamran & Bano, 2023). Public schools that accept students with disabilities may face problems with overcrowding and insufficient resources. The large class sizes can make it hard for teachers to give the support that students with autism may require. The requirement for families to hire and pay for shadow teachers creates financial difficulties for middle- and lower-income households (Kamran & Bano, 2023; Pirzada et al., 2024). Private schools are often considered better as they have more resources, but students with autism are often not allowed to enroll. Concerns about managing behavior and academic rankings generally drive these decisions.

Cultural Beliefs and Access to Services

One of the greatest challenges for students with autism and their families may be the cultural misconceptions about autism, as many people do not know what autism is, or what causes it. Therefore, they may assume things that are not true and share untrue beliefs based on stereotypes of what it means to have a disability. Autism is frequently mistaken for intellectual disability, or wrongly interpreted as bad behavior, stubbornness, poor parenting, or connected to spiritual causes like retribution from Allah on the child or the parent, for past sins, and supernatural possession (Bashir et al., 2024; Rashid et al., 2024). The misinformation may cause families to feel shame and worry about what others think. In an environment where family honor and social approval are very important, many parents choose to keep silent (Salman et al., 2024). The beliefs have implications for education and have contributed to a system where many children with autism are excluded because of how they are perceived. When educators misinterpret the social, communication, or behavior characteristics of autism as noncompliance, laziness, or defiance, it can lead to inappropriate responses and missed opportunities for learning (ASER Pakistan, 2024; Bashir et al., 2024).

Table 1. Descriptions of Evidence-Based Practices for Children and Youth with Autism.

Practice	Description
Antecedent-Based Interventions	Changing what happens before a task to increase desired or reduce undesired behavior
Augmentative and Alternative Communication	Teaching or using non-verbal communication methods like devices, picture books, or sign language
Behavioral Momentum Intervention	Building motivation start with easy tasks before moving to harder ones
Cognitive Behavioral Instructional Strategies	Helping students manage thoughts to change how they act or learn.
Differential Reinforcement	Reward positive behavior; ignore or reducing rewards for negative
Direct Instruction	Teaching method using clear lessons, repetition, and quick feedback
Discrete Trial Training	Step-by-step teaching -teacher instructions, student response, consequence
Exercise and Movement	Using physical activities or exercises to improve behavior or learning.
Extinction	Stopping reinforcement for negative behaviors to reduce over time
Functional Behavioral Assessment	Studying why a behavior happens to create better support strategies
Functional Communication Training	Teaching a better way to communicate.
Modeling	Showing the behavior you want the student to learn.
Music-Mediated Intervention	Using music, rhythm, or singing to teach or support skills.
Naturalistic Intervention	Teaching skills within everyday activities and routines.
Parent-Implemented Intervention	Training parents to support learning and behavior at home.
Peer-Based Instruction and Intervention	Using classmates to support learning and social skills.
Prompting	Giving reminders, hints, or help to teach a skill
Reinforcement	Providing rewards to encourage repeated use of a skill or behavior
Response Interruption Redirection	Distracting or guiding a student away from disruptive behavior
Self-Management	Teaching students to monitor and reward their own behavior.
Sensory Integration®	Helping students respond to and manage sensory.
Social Narratives	Writing or reading stories that explain social situations and behavior
Social Skills Training	Teaching how to interact appropriately with others in social settings
Task Analysis	Breaking a task into small steps to make it easier to teach and learn.
Technology-Aided Instruction and Intervention	Using specific technology tools to teach or support learning.
Time Delay	Waiting a few seconds before giving help to encourage responses
Video Modeling	Showing videos of someone doing a skill to help learn by watching
Visual Supports	Using pictures, signs, or objects to help understand routines or expectations

Note: Descriptions are adapted from Evidence-Based Practices for Children, Youth, and Young Adults with Autism (Steinbrenner et al., 2020), published by the National Clearinghouse on Autism Evidence and Practice. Used with permission under educational fair use guidelines.

Best Practices in Autism Education

Improving autism education means finding teaching approaches that are practical, effective, and supported by research. Evidence-Based Practices (EBPs) are strategies carefully studied and proven to help students build skills in areas like communication, learning, and behavior (Steinbrenner et al., 2020). Table 1 provides a plain-language summary of 28 EBPs identified as effective for children and youth with autism. Each practice is briefly described to support educators, families, and practitioners in understanding and applying these strategies. High-Leverage Practices (HLPs) are key teaching methods that work well for all students, including those with disabilities. The HLPs on things like clear instruction, working closely with families, and using student data to guide teaching decisions (Aceves & Kennedy, 2024). Table 2 provides an overview of 22 HLPs intended to help educators integrate EBPs into daily practice, with cultural and resource relevance in mind.

The EBPs are teaching and intervention strategies that have been proven through high-quality research to support communication, learning, and behavior (Steinbrenner et al., 2020). Common examples include reinforcement, modeling, prompting, and the use of visual supports. The approaches are valuable because they are adaptable and low-cost. Visual schedules (simple picture-based routines) can help students manage daily transitions, while social stories (short, personalized narratives) can prepare students for new situations or social interactions. Despite their strong evidence base, EBPs are not widely understood or applied in schools (Salman et al., 2024). Access to professional development (especially in rural or underserved areas) is limited. The strategies do not require expensive equipment or advanced specialization. To make EBPs

Table 2. High-Leverage Practices.

HLP #	Description Fit
HLP 1	Collaboration with staff is familiar in many schools, especially among subject teachers or with principals.
HLP 2	Parent-teacher meetings and informal family contact are common; this aligns well with cultural norms.
HLP 3	Student voice is less emphasized traditionally, but this can promote respectful inclusion of students' input.
HLP 4–6	Pakistani teachers do use tests and exams; guiding them to include observations and informal data is practical.
HLP 7	Predictable routines and classroom discipline are highly valued and culturally appropriate.
HLP 8	Encouraging praise alongside correction matches Islamic and cultural values of encouragement and respect.
HLP 9	Social/emotional skills are often taught implicitly; this makes the value of formal teaching clearer.
HLP 10–11	Fits well with Pakistan's strong focus on academics and structured teaching.
HLP 12	Scaffolding is intuitive for many teachers but can be made more intentional through examples.
HLP 13	Flexible grouping is feasible with some classroom management support.
HLP 14	Metacognition can be promoted via study tips or religious reflection activities.
HLP 15	Practicing aloud or through repetition is already common; this expands on that.
HLP 16	Tech use via phones, WhatsApp, projectors is familiar—even in resource-limited settings.
HLP 17	Accommodations like verbal instructions or extra time are doable and culturally understood.
HLP 18	Intensification is relevant for multi-grade or large classrooms where some students fall behind.
HLP 19	Functional skills fit vocational and life-skills tracks in both public and special schools.
HLP 20–21	Decision-making and transitions are highly relevant for board exams, college entry, or madrassa shifts.
HLP 22	Advocacy can align with educators' informal role in supporting disadvantaged students.

Note: Descriptions are adapted from High-Leverage Practices in Special Education (2nd ed.) by the Council for Exceptional Children and the CEEDAR Center (Aceves & Kennedy, 2024). Used under educational fair use for adaptation and training purposes within Pakistan's inclusive education context.

more accessible, free online training is available through the Autism Focused Intervention Resources and modules (AFIRM) modules (https://afirm.fpg.unc.edu) and Autism Internet Modules (AIM) modules (https://autisminternetmodules.org). The platforms provide step-by-step instructions, videos, printable tools, and data collection resources. The tools are designed for a wide audience (parents, caregivers, teachers, shadow teachers, etc.).

To help bridge the gap in autism education and strengthen the implementation of EBPs, the Council for Exceptional Children (CEC) developed HLPs updated in 2024 (Aceves & Kennedy, 2024). While EBPs focus on targeted strategies for specific skills or behaviors, HLPs offer a broader teaching framework that guides educators in making informed, data-based decisions. HLPs are organized into four key areas:collaboration with colleagues and families, using data to inform instruction, teaching academic and behavioral skills, and adapting instruction to meet student needs. For example, direct instruction (teachers model a skill and guide students step by step) is a core HLP that supports student understanding. Another important practice is involving families, which ensures school efforts are connected to what students experience at home. In culturally diverse settings like Pakistan, where families play a central role in children's education, involving them in the learning process is important (McKeithan et al., 2025). The HLPs recognize this by emphasizing collaboration with families as a core strategy. The HLPs promote the use of assistive technology to support students who face communication challenges, helping them engage more fully in classroom activities. The practices are flexible and realistic. The HLPs can be integrated into teacher preparation and ongoing professional development. HLPs complement and enhance the use of EBPs. A teacher might use the HLP of explicit instruction to introduce visual supports (Aceves & Kennedy, 2024). Free resources to learn about HLPs are available through the CEC website (https://highleveragepractices.org), including practice guides, videos, classroom tools, leadership guides, and downloadable PDFs.

Suggestions for Educators

Teachers across Pakistan do their best with available resources and knowledge. Many teachers support large groups of students with diverse needs and find creative ways to manage classrooms, build relationships, and teach students (Rashid et al., 2024). Using a few HLPs and EBPs can help them be even more effective. The strategies can be used in all classrooms to help all students. The hope is that teacher education programs will begin to include this training, and educators will be better prepared to support the different needs of students (Aceves & Kennedy, 2024). Teacher training and professional development programs may begin by encouraging educators to build a foundational understanding of autism and its impact on learning, communication, behavior, and sensory processing. Educators can benefit from understanding how

Table 3. Classroom Strategies to Support All Learners.

Setting	Grades	HLP or EBP	Example
Pre-primary	Nursery–KG	EBP – Visual Supports	Picture schedule showing 'snack time,' 'home'
Pre-primary	Nursery–KG	EBP – Modeling	Demonstrate how to say 'salaam' and take turns in play
Pre-primary	Nursery–KG	EBP – Prompting	Use gestures to guide toward the correct behavior
Pre-primary	Nursery–KG	EBP – Reinforcement	Clap or say 'Shabash' for sharing toys
Pre-primary	Nursery–KG	EBP – Naturalistic Intervention	Use tea-set play to teach pouring, sharing, and vocabulary
Pre-primary	Nursery–KG	HLP 7 – Consistent Environment	Same signals for transitions (e.g., clapping pattern)
Pre-primary	Nursery–KG	HLP 3 – Family Collaboration	Share Urdu-language routines with parents to use at home
Pre-primary	Nursery–KG	HLP 16 – Explicit Instruction	Show how to zip a bag step by step
Pre-primary	Nursery–KG	HLP 19 – Assistive Technology	Communication board with toilet, food, and water images
Primary	1–5	EBP – Social Narratives	Read a simple story about classroom rules before a group activity
Primary	1–5	EBP – Peer-mediated Instruction	Assign a buddy to help another student follow instructions or pack their bag
Primary	1–5	EBP – Discrete Trial Training	Teach one math step at a time with reward after correct answer
Primary	1–5	EBP – Response Interruption	Calmly stop interrupting and redirect to raising hand
Primary	1–5	EBP – Differential Reinforcement	Reward sitting quietly instead of calling out during the lesson
Primary	1–5	HLP 6 – Use Data to Inform Instruction	Adjust reading groups based on weekly comprehension scores
Primary	1–5	HLP 8 – Provide Constructive Feedback	Tell students what they did well and what to improve in writing tasks
Primary	1–5	HLP 13 – Use Goal Setting	Ask students to set a weekly target, like finishing a chapter book
Primary	1–5	HLP 17 – Flexible Grouping	Rearrange groups based on skills
Primary	1–5	HLP 18 – Provide Opportunities to Respond	Use "thumbs up/down" during oral questions
Middle	6–8	EBP – Self-management	Students use a simple log to track if they completed homework or stayed on task
Middle	6–8	EBP – Time Delay	Wait 5 seconds before offering help
Middle	6–8	EBP – Scripting	Provide a short written script for "How to ask a classmate for help"
Middle	6–8	EBP – Prompt Fading	Gradually reduce hand-over-hand help
Middle	6–8	HLP 1 – Build Relationships	Greet students by name and ask a daily question like "How was your weekend?"
Middle	6–8	HLP 4 – Collaborate on Behavior Support	Work with families to use the same calming techniques at home and school
Middle	6–8	HLP 11 – Teach Social Skills	Teach how to respond to teasing using role-play in Urdu
Middle	6–8	HLP 15 – Scaffold Instruction	Provide vocabulary banks and graphic organizers for essay writing
Middle	6–8	HLP 12 – Use Positive Behavior Support	Implement a token reward system for on-task behavior
Secondary	9–10	EBP – Task Analysis	Break an English essay into steps: brainstorm → outline → draft → revise
Secondary	9–10	EBP – Video Modeling	Show a short video of a successful procedures or how to do assignments
Secondary	9–10	EBP – Choice Making	Let students choose whether to do math problems on paper or in a notebook

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Table 3. Continued.

Setting	Grades	HLP or EBP	Example
Secondary	9–10	EBP – Response Training	Teach alternatives to pencil tapping, like squeezing a stress ball
Secondary	9–10	EBP – Extinction	Stop reacting to off-task jokes if they're meant to distract class
Secondary	9–10	HLP 2 – Collaborate with Professionals	Work with a speech therapist to support a student with language delays
Secondary	9–10	HLP 5 – Family in Academics	Send parents summaries of classwork in Urdu and tips for home support
Secondary	9–10	HLP 9 – Conduct Task Analysis	Write math procedure steps on the board before students begin
Secondary	9–10	HLP 10 – Use Assessment	Give a short quiz to adjust pacing of the next unit
Secondary	9–10	HLP 20 – Provide Accommodations	Allow extra time or fewer questions on exam
Higher Secondary	11–12	EBP – Technology-Aided Instruction	Share recorded lecture summaries
Higher Secondary	11–12	EBP – Parent-Implemented Intervention	Provide parents with a checklist to support college application preparation
Higher Secondary	11–12	EBP – Structured Play Groups	Facilitate structured debate circles to develop social and academic confidence
Higher Secondary	11–12	HLP 14 – Teach Metacognitive Strategies	Guide students to reflect after lessons: "What helped you understand?"
Higher Secondary	11–12	HLP 21 – Use Assistive Technology	Allow note-taking with phones or typing responses on shared devices
Higher Secondary	11–12	HLP 22 – Support Transitions	Provide a checklist and deadline calendar
Higher Secondary	11–12	HLP 16 – Explicit Instruction	Model how to complete a multifaceted assignment in steps and offer examples, check understanding of each step
Higher Secondary	11–12	HLP 19 – Tech in Instruction	Use recorded teacher explanations or voice messages for difficult concepts

Note: HLPs are adapted from High-Leverage Practices in Special Education by the Council for Exceptional Children & CEEDAR Center (Aceves & Kennedy, 2024). EBPs are adapted from Evidence-Based Practices for Children, Youth, and Young Adults with Autism by (Steinbrenner et al., 2020), National Clearinghouse on Autism Evidence and Practice. Used and modified under fair use for educational purposes.

students experience challenges with social interaction, expressive or receptive language, or sensory sensitivities that influence their ability to participate in classroom activities (Steinbrenner et al., 2020). For a basic overview of autism, educators can complete the free module, "Introduction to Autism" (https://afirm.fpg.unc.edu/ebp-module/introduction-to-autism/); (Steinbrenner et al., 2019).

The HLPs offer a structured and accessible framework that can guide teachers in responding to these challenges in a practical way (Aceves & Kennedy, 2024). One starting point is the use of explicit instruction, described in HLP 16, which involves breaking tasks into manageable parts, modeling each step, allowing time for student practice, and offering feedback. An easy way to avoid confusion is to use "teacher talk" when introducing new instructions and modeling how to complete tasks. For example, when teaching a student how to ask for help, a teacher may verbalize the phrase, point to a supporting visual, and prompt the student to respond. Attempts are reinforced, and the cycle is repeated as needed. The approach is supported by several core EBPs (modeling, prompting, and reinforcement), which have been shown to improve outcomes for students with autism (Steinbrenner et al., 2020). One benefit of teaching HLPs and EBPs in teacher programs is that they encourage educators to consider the cognitive demands of learning tasks from the student's perspective. Teachers break down complex lessons into component steps, anticipating potential misconceptions, and planning proactive support to reduce barriers to learning (Aceves & Kennedy, 2024; Steinbrenner et al., 2020). Teachers can use simple strategies that may already be part of their teaching practice and can be strengthened with a few small adjustments. HLP 14 encourages strategies that help students think about their learning. Teachers can learn from each other by practicing methods together or watching short videos online (Aceves & Kennedy, 2024). Another strategy is making the class routine clear and predictable

(showing a daily schedule with pictures or step-by-step instructions). Visual supports like these can benefit all students but are especially useful for students with autism (Steinbrenner et al., 2020). HLP 7 recommends creating a consistent and organized learning environment. Teachers can prepare students for changes in routine, use the same signals each day to start or end activities, and label classroom areas such as "reading corner" or "math table" with pictures and words. To support students with social skills, teachers can use peer buddies (peer-mediated instruction, another EBP). A buddy can help a student during group work or join them in games during free time. Teachers should explain how to be helpful and kind, and show students how to take turns, ask politely, or say thank you (modeling and positive reinforcement), showing students what to do and praising their efforts (Aceves & Kennedy, 2024; Steinbrenner et al., 2020). Communication is another area where support may be needed. Teachers do not always need formal training; strategies can be learned by observing others or discussing what works. Teachers can use chalkboards to draw visuals, reuse printed materials, or record simple instructions using mobile phones. Local organizations such as the Autism Resource Centre Pakistan may offer Urdu-language resources and free workshops or school visits. When teachers and families communicate regularly, they can share information about what works. Administrators can help by making time for collaboration, providing materials or training opportunities (Aceves & Kennedy, 2024; Steinbrenner et al., 2020). Table 3 shows several examples of how schools may integrate the HLPs and EBPs into varied classrooms.

Suggestions for Parents

Families are their children's first teachers, and their role is equally powerful (at home, in schools, and in the wider community). Many of the same strategies can be adapted for family routines, daily interactions, and community involvement (Aceves & Kennedy, 2024; Steinbrenner et al., 2020). In Pakistan, where extended families, religious gatherings, and neighborhood networks are central to daily life, involving parents and caregivers is practical and essential (Hehsan et al., 2024). When families learn simple, proven approaches (i.e., visual schedules, giving clear praise, or practicing a new skill step-by-step), they can help their children experience more success in everyday situations.

Autism is one of these natural differences in how the brain works (American Psychiatric Association, 2022). Autism is not caused by vaccines, evil spirits, or anything a parent has done wrong. Autism is not a punishment or a result of sin (Shaw et al., 2025). Autism is a developmental condition that begins early in life and simply means that a child's brain processes information in a different way (Taufiq & Mckeithan, 2024; World Health Organization, 2025) . Children with autism may need support with things like communication or social interaction, but they bring creativity, focus, and special abilities that can enrich their families and communities. When they are understood and supported, they can live full and meaningful lives (Steinbrenner et al., 2020). Like all children, they deserve understanding, encouragement, and the chance to reach their potential.

One of the most important steps families and communities can take is to be open to learning more. When people understand what autism is, they are more likely to notice early signs, respond with support, help children feel included, and achieve more positive long-term outcomes (Steinbrenner & Odom, 2025). Some common early signs include a delay in speaking, limited eye contact, not responding to their name, or doing the same action over and over again (World Health Organization, 2025). The signs are not signs of failure—they are simply differences that may need attention. Early identification can make a big difference in a child's development. Families, teachers, Lady Health Workers, and neighbors all play a role. With awareness and compassion, communities can become places where families feel safe to ask questions and seek guidance. Sharing information in local languages through community spaces (schools, mosques, clinics, or neighborhood centers) can make a difference. Posters, radio messages, short videos, and local stories that show real families can reduce stigma (Ashraf et al., 2022; Nadeem et al., 2024). Being open to new ideas, asking questions, and supporting one another are the first steps to building communities where all children can thrive. Communities play an important role in helping families learn about autism. Trusted people like religious leaders, school principals, and television hosts can help others understand that autism is not something to fear or hide. Sharing simple messages in Urdu and other local languages can make a difference. The WHO recommends making screening tools available in public clinics, using local languages, and teaching health workers how to use them (World Health Organization, 2025).

Table 4. Home and Community Strategies for Families Using HLPs and EBPs.

Setting	Grades	Ages	HLP or EBP	Example
Home	Nursery–KG	3–5	HLP 1 – Build Relationships	Start each day with salam and a smile; use gentle voice and eye contact to build trust.
Home	Nursery–KG	3–5	EBP – Scripting	Practice short dua phrases like ”Bismillah” before eating, using repetition and gesture.
Community	Nursery–KG	3–5	HLP 4 – Behavior Collaboration	Ask madrassa teachers to share calming routines to use at home after noisy events.
Home	Nursery–KG	3–5	EBP – Time Delay	Pause after offering food to encourage the child to point, gesture, or say the word first.
Community	Nursery–KG	3–5	HLP 9 – Conduct Task Analysis	Show brushing teeth as steps: rinse → brush → spit → rinse again, using images or miming.
Home	Nursery–KG	3–5	EBP – Parent-Implemented Intervention	Use a basic daily routine chart, reviewed by parent and child together every evening.
Community	Nursery–KG	3–5	HLP 20 – Accommodations	Use headphones or allow breaks in busy events like Eid prayers or weddings to reduce overload.
Home	Nursery–KG	3–5	EBP – Functional Communication Training	Use simple visuals like cup, toy, or toilet to help the child make choices.
Community	Nursery–KG	3–5	HLP 12 – Positive Behavior Support	Praise small achievements publicly at family gatherings to boost self-esteem.
Home	Nursery–KG	3–5	EBP – Naturalistic Teaching	While preparing roti, talk about what you are doing and invite the child to repeat or name items.
Home	Class 1–5	6–10	HLP 6 – Use Data to Inform Support	Keep a sticker chart of positive behaviors like saying salaam or sharing books.
Community	Class 1–5	6–10	EBP – Peer Training	Pair siblings or cousins to practice simple social games like “Simon Says” or turn-taking.
School	Class 1–5	6–10	HLP 13 – Goal Setting	Set a family reading goal: “We will finish this Urdu story together this week.”
Home	Class 1–5	6–10	EBP – Mand Training	Teach child to ask for their favorite snack using one clear word or image.
Community	Class 1–5	6–10	HLP 19 – Assistive Technology	Use family phone to play recorded family voices with greetings and messages.
Home	Class 1–5	6–10	EBP – Visual Modeling	Record a cousin or sibling reciting a short dua, and watch it with your child before practicing.
School	Class 1–5	6–10	HLP 15 – Scaffold Routines	Break homework into small steps; write them on a small whiteboard or notebook.
Community	Class 1–5	6–10	EBP – Response Interruption	Gently interrupt repetitive talking and redirect attention with a fun activity or walk.
Home	Class 1–5	6–10	HLP 17 – Flexible Grouping	Invite cousins over and group them by interest to support inclusive play sessions.
School	Class 1–5	6–10	EBP – Task Analysis	Guide child through wudu using picture steps and supportive verbal cues.
Home	Class 6–8	11–13	EBP – Narrative Skills Training	Practice telling a story about a school day using pictures to support sequencing.
Community	Class 6–8	11–13	HLP 8 – Feedback	Give specific feedback at home, e.g., “You helped your brother today. That was kind and patient.”
Home	Class 6–8	11–13	EBP – Video Modeling	Use mobile phone to record a sibling doing homework quietly and show to encourage similar behavior.

Table 4. Continued.

Setting	Grades	Ages	HLP or EBP	Example
School	Class 6–8	11–13	HLP 5 – Family Engagement	Join a parent group at school and share positive routines used at home.
Community	Class 6–8	11–13	EBP – Self-Management Charts	Help child track salah or school tasks with stickers or checkboxes.
Home	Class 6–8	11–13	HLP 10 – Informal Assessment	Observe child's mood before and after outings and adjust plans based on reactions.
Community	Class 6–8	11–13	EBP – Reinforcement	Offer 15 minutes of screen time after homework is finished and shared with a parent.
Home	Class 6–8	11–13	HLP 18 – Opportunities to Respond	During dinner conversations, invite child to answer family questions.
School	Class 6–8	11–13	EBP – Peer-Mediated Groups	Coordinate with teacher to pair your child with a calm, helpful classmate.
Community	Class 6–8	11–13	HLP 21 – Use Simple Tech	Use a recorded voice message to remind your child of tasks during family gatherings.
Home	Class 9–12	14–18	HLP 22 – Transition Planning	Sit together to map future goals (e.g., madrassa, skill-building, college); create a checklist.
Community	Class 9–12	14–18	EBP – Cognitive Behavioral Support	Use thought journals to track stressful moments and reflect on calming strategies.
School	Class 9–12	14–18	HLP 16 – Explicit Instruction	Practice filling out forms or resumes together with clear modeling.
Home	Class 9–12	14–18	EBP – Choice Making	Let teen choose meal plan or study schedule; build ownership through decision-making.
Community	Class 9–12	14–18	HLP 2 – Professional Collaboration	Join disability awareness events or school meetings with local psychologists.
Home	Class 9–12	14–18	EBP – Extinction	Ignore attention-seeking behavior while reinforcing positive alternatives.
School	Class 9–12	14–18	HLP 11 – Social Skills Teaching	Practice polite disagreements or respectful questions in Urdu during family gatherings.
Community	Class 9–12	14–18	EBP – Technology-Aided Support	Use WhatsApp voice notes or shared calendars to support reminders and planning.
Home	Class 9–12	14–18	HLP 14 – Metacognitive Strategies	After any challenge, ask "What worked for you today?" and "What might help next time?"
Community	Class 9–12	14–18	EBP – Functional Assessment	Identify situations that regularly cause meltdowns (e.g., busy markets), and plan alternatives.

Note: HLPs are adapted from High-Leverage Practices in Special Education by the Council for Exceptional Children & CEEDAR Center (Aceves & Kennedy, 2024). EBPs are adapted from Evidence-Based Practices for Children, Youth, and Young Adults with Autism by (Steinbrenner et al., 2020), National Clearinghouse on Autism Evidence and Practice. Used and modified under fair use for educational purposes.

Home-Based Strategies

For many families in Pakistan, getting professional support may be difficult. However, there are many strategies families can implement at home. Learning about and using the EBPs and HLPs can enable families to support children with autism in communication, behavior, and independence (Aceves & Kennedy, 2024; Steinbrenner et al., 2020) . The strategies are flexible and can be used during daily routines, such as mealtimes, bedtime, or play.

Visual supports are one of the most helpful tools. For example, "a First-Then" board uses pictures or words to show what will happen next. It might say, "First brush teeth, then play." This helps children understand what is expected, keeps them motivated, and combines the EBPs of reinforcement and visual supports (Steinbrenner et al., 2020). Caregivers can

support language development by using modeling (showing your child what to say and do). While folding laundry, a parent might point to a shirt and say, "Shirt. This is your red shirt." Repeating the phrases during tasks can help a child learn new words (combining modeling EPG and explicit instruction HLP). Social stories can help children understand what will happen in a new situation. A parent might say, "Tomorrow we will go to the doctor. We will wait, talk to the doctor, and then come home." Drawing pictures or acting out the story can help the child feel more prepared, reduce anxiety, and improve cooperation (Steinbrenner et al., 2020). Children learn through play. Taking turns during a game (rolling a ball, stacking blocks) teaches patience and sharing. Saying "My turn" and "Your turn" helps children learn how to interact. Positive reinforcement is another helpful strategy. When a child does something well (ask for help, finish a task, or use kind words), give specific praise such as, "Great job asking nicely!" or offer a reward. The feedback makes it more likely that the child will do the behavior again. Teaching a child to brush their teeth or wash their hands can be done in small steps using a process called task analysis. First, the adult gives help through prompts like guiding the child's hand or giving simple instructions. Over time, the support is gradually reduced, so the child becomes more independent. The strategy aligns with HLP 12 and the EBPs of prompting and fading (Steinbrenner et al., 2020). For children who struggle to speak, use pictures to help them communicate. A homemade communication board with pictures of common items like food or toys allows a child to point to what they want. Using this visual tool is a form of augmentative and alternative communication (AAC), an EBP shown to help many children express themselves (Steinbrenner et al., 2020).

Watching videos or demonstrating a skill in person can help children learn tasks such as greeting others, asking for help, or following routines. Families can search for short, child-friendly demonstration videos on YouTube using terms such as "how to brush teeth for kids" or "greeting others for children with autism." When internet access is limited, caregivers can make their videos using a phone. Recording a family member calmly demonstrating the steps of a task (washing hands, putting on shoes) can be a helpful tool. Replaying the videos regularly and practicing together can reinforce learning. After watching, your child can practice with support. Helping children manage emotions is also important. A feelings chart with pictures of happy, sad, angry, or tired faces can help children recognize and name feelings. Adults can say, "You look sad. Let's take deep breaths," and model calming strategies like hugging a pillow or counting slowly. The strategy is part of HLP 14 teaching emotional and self-regulation skills (Aceves & Kennedy, 2024).

Creating a calm space in the home can help prevent meltdowns (a small area with soft pillows, a favorite book, or quiet toys). Giving choices throughout the day can help children feel more in control. Asking, "Do you want to wear the red shirt or the blue one?" or "Do you want rice or roti?" supports communication and independence. Offering choices is part of functional communication training and supports positive behavior (Steinbrenner et al., 2020). Reading together, pointing at pictures, and waiting for the child to respond can build joint attention (important for developing communication and social interaction). Caregivers can support communication by encouraging children to make simple requests. "Do you want a banana? Say banana," and then immediately provide the item when the child attempts, helps connect words with actions. Known as mand training, this EBP teaches children how to express their needs (Steinbrenner et al., 2020). Practicing during meals, playtime, or dressing routines creates natural opportunities for learning and strengthens communication skills.

Visual reminders can make routines easier. A handwashing chart above the sink or a behavior chart near the table helps children know what to do. The supports reduce the need for constant verbal instructions and help the child feel more independent. Families can also track their child's progress using a notebook or sticker chart. Writing down small achievements, such as trying a new food or using a new word, helps parents see what is working and adjust strategies. This reflects HLP 6, which encourages using observation and data to guide teaching (Aceves & Kennedy, 2024). Siblings can play a helpful role too. When they model positive behaviors—like saying hello, asking nicely, or sharing—children with autism often learn by watching. Encouraging siblings to participate in learning builds stronger family bonds and creates more chances for social growth. Table 4 presents practical strategies for families.

Advocacy and Community Support

Supporting a child with autism does not need to be a lonely journey. Many families in Pakistan feel unsure or overwhelmed when trying to understand how to help their child, especially with limited support in schools or clinics. But small steps taken at home, in the community, and with others can make a big difference. One of the most powerful things families can do is talk to others who are on the same path. You might start a small WhatsApp group with parents from your neighborhood, school, or clinic. The groups are great for sharing tips about good doctors, useful apps, local resources, or

simply listening when someone is feeling stressed. You are not alone (sometimes, just hearing "Yes, that happened to us too" brings comfort and hope). Free online training is available, designed for families, teachers, and caregivers that can help you support your child at home. Try out the AFIRM Modules (https://afirm.fpg.unc.edu/afirm-modules) and AIM (https://www.autisminternetmodules.org/), which provide step-by-step strategies supported by research, called EBPs. The resources include simple tools like using visual schedules, giving praise, or practicing tasks one step at a time (Steinbrenner et al., 2020). The CEC (https://highleveragepractices.org/) also shares helpful ideas called HLPs, which are practical strategies for helping children learn. Many of these strategies are already being used in classrooms around the world, and families can try them at home (Aceves & Kennedy, 2024). After you learn something new, talk about it with other parents, teachers, or neighbors. Share a video, print a short guide in Urdu, or show a drawing of what helped your child.

Be Involved

If you feel ready, speak up for your child's needs. Attend parent-teacher meetings, visit the school, and talk to the teacher. Let them know what helps your child learn or stay calm. Even if you are not an expert, your voice matters. Writing down a few simple strategies or bringing along a short guide can make your message clearer. You might even share your story during a school event or parent meeting. Many people do not understand autism until they see it through a parent's eyes. When families talk openly about their child's strengths and challenges, it helps others become more understanding and supportive. In Pakistan, community trust is often strongest in places like mosques, madrassas, and health centers. These are perfect places to raise awareness about autism. You can ask an imam to include a short message about kindness and inclusion during Friday prayers or encourage a Lady Health Worker to talk about child development during home visits. Women's groups, NGOs, and volunteers can organize small awareness sessions, tea gatherings, or family events. When information comes from familiar and respected voices, people are more likely to listen. Teachers often want help but may not know how. Keeping regular contact with your child's teacher helps them understand what works well. Share successes from home, like using a new word or staying calm during prayer. Small victories mean a lot and help build trust between families and schools. Remember that change does not happen overnight, but little steps can lead to big changes. Most importantly, celebrate every step forward—whether it's a new word, a smile, or a full day at school. When families, teachers, and communities work together, children with autism can feel safe, understood, and ready to thrive.

Conclusion

Every child deserves to feel valued, supported, and included. Children with autism have strengths, potential, and unique ways of experiencing the world. Communication differences, learning challenges, or behavioral variations do not mean a child is broken, they simply mean support may look different. Recognizing and respecting these differences opens the door to growth, connection, and inclusion (Steinbrenner et al., 2020; Aceves & Kennedy, 2024). Across Pakistan, families, educators, and communities can choose to adopt more inclusive ways of thinking. Parents can learn to use simple EBPs and HLPs and integrate them into daily routines. Teachers can integrate the EBPs and HLPs into their practice to reach a wider range of students. These strategies are grounded in compassion and practicality and can promote real progress in resource-constrained environments (Aceves & Kennedy, 2024; Salman et al., 2024). Communities must also step forward. Mosques and madrassas can become sites for awareness. Imams, Lady Health Workers, and local educators can share messages that reduce stigma and promote understanding. These voices are powerful, particularly when they echo core Islamic values of equity, compassion, and justice (Bashir et al., 2024; Hehsan et al., 2024). When trust is built and knowledge is shared, support becomes more effective, and stigma begins to fade. Policymakers and researchers also have critical roles. More data is needed to inform planning and resource allocation. Local studies should evaluate how EBPs and HLPs function in real Pakistani classrooms, homes, and health systems (Aftab et al., 2024; Kamran & Bano, 2023). Inclusion is not about fixing children. It is about adjusting systems, attitudes, and expectations so every child has a chance to thrive.

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