

Recognizing the Need for Customized Social Stories: A Parent's Perspective in the Pakistani Context

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Abstract

This study explores the importance of customized social stories in the context of Pakistan to improve the social skills of children with Autism Spectrum Disorder (ASD). Data was collected from 62 parents of diagnosed children with ASD across various cities using a quantitative descriptive approach and survey method. The research instrument demonstrated a reliability score of Cronbach's Alpha 949, and field experts verified its validity. Findings reveal a solid parental desire to develop culturally relevant social stories to aid in teaching and supporting their children. Parents emphasized the effectiveness of these stories in enhancing their children's social skills and daily functioning. The use of social stories intervention for improving social skills among children with autism spectrum disorder is minimal, according to research that reviewed recent literature on the topic. It is because the social stories currently available are mainly in a western context, which does not accurately reflect Pakistan's social context, necessitating the development of customized social stories specifically tailored to the needs of Pakistan's current autistic population for different difficult social situations. This study will offer a piloted mechanism to assess the written and visual content of a given customized social story in the Pakistani context and a tentative framework for creating and assessing customized social stories to ensure their appropriateness for Pakistan's environment and culture. The study concludes that there is a significant need to create and disseminate customized social stories within the Pakistani context, providing valuable resources for parents to train better and support their children with ASD at home and in various social situations.

Keywords: Social Stories, Parents Perspective, Needs Recognition.

Introduction

Autism is characterized by speech, nonverbal communication, repetitive behaviour, and social skills (Aftab et al., 2023). Language impairment, social interaction issues, limited interest, and repetitive motor movements characterize it. About 31% of children with ASD have an IQ below 70 (Autism statistics and facts, 2020). Yapko (2003) highlights the importance of social skills in human existence, but poor social skills can hinder growth and cause loneliness, isolation, rejection, and poor academic performance. Children with Autism Spectrum Disorder (ASD) often suffer from these deficits, necessitating the implementation of interventions to help them develop their social skills (Yapko, 2003; Blanck, 2019).

Various intervention methods, including Floortime, relationship development, and others, focus on cognitive training and environment communication, but none directly address social skills (Rowland, 2020). Therefore, an alternative method is needed to improve social skills in

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children with ASD. Gray's social stories method, based on the theory of mind hypothesis, aids children with Autism Spectrum Disorder (ASD) in teaching social skills through context and guidance, enhancing behaviours, responding, recognizing emotions, and playing games (Wright & McCathern, 2012).

The social stories intervention was prepared based on Gray's (2000) instructions as follows: Social stories begin with descriptive sentences explaining circumstances, individuals, and events. Perspective sentences express characters' inner feelings, which are crucial for children with ASD (Bartolomeo et al., 2019). Directive sentences outline social cues and reactions, while control sentences support the material. Affirmative sentences emphasize the importance of directive sentences, and cooperative sentences explain others' actions and how they can be helpful (Ashraf et al., 2022).

A researcher has taught social stories to children with Autism Spectrum Disorder (ASD) for nine years, finding them effective in improving social skills. However, more suitable stories are needed in Pakistan. The study aims to develop customized social stories to improve ASD social skills in Pakistan. These structured scripts can help children understand social situations, public behaviour, and social skills and establish desirable behaviour.

Statement of the Problem

A private practitioner used social stories as an intervention for children with autism spectrum disorder. They initially used online stories without modifications but later customized them for children's engagement. The children responded positively and learned new social skills. However, the efficacy of this method needs further investigation in more schools and teachers. Social stories have not been used in Pakistan due to Western influences and a lack of culturally appropriate stories.

Significance of the Study

This study is the first to design and deploy customized social stories for autistic children in Pakistan. It highlights the limited use of social stories to improve social skills among children with autism spectrum disorder. The study aims to provide insights to Pakistani teachers and decision-makers in the Ministry of Special Education, highlighting the need for pre-service and in-service teacher training programs to address the social and communicative needs of autistic children.

Research Objectives

The study aims to determine whether, in the context of Pakistan, specialized social stories for kids with autism spectrum disorder are necessary and feasible.

Research Questions

Based on the objectives mentioned above, the research questions are as follows:

- What is the need and feasibility of customized social stories for children with autism spectrum disorder in the context of Pakistan?

Literature Review

Autism, a long-standing condition, has been recognized since 1799 and influenced by factors such as Leo Kanner's 1943 study and Hans Asperger's work (Robison, 2017). The Diagnostic and Statistical Manual of Mental Disorders (DSM-III) was the first to officially recognize autism in infants, with criteria for infantile autism including onset before 30 months, inability to respond, language delays, and unusual reactions. The DSM-IV, published in 1994, included formalized criteria for diagnosing Asperger's syndrome, characterized by deficits in social interaction, communication, and creativity (Bleak & Abernathy, 2022).

Diagnostic criteria for ASD are often based on Western cultural data, with social and cultural factors impacting diagnosis rates and acceptability. Developmental delays and decreased language abilities are common diagnostic indicators in the US. However, in Asian cultures, eye contact may not be a primary factor, making it less uncommon to identify ASD (Voulgarides & Barrio, 2021).

ASD incidence has been increasing globally, with an average prevalence of 14.8 cases per 10,000 individuals in the Asian region from 1980 to 2010. However, expanding diagnostic criteria, modifications in epidemiological surveys, and variations in sample size, publication year, and geographic location may need to improve the usefulness of estimating trends over time (Chachar & Mian, 2022).

ASD is often linked to a combination of genetic susceptibility and environmental factors, with rare genetic risk factors accounting for about 20% of ASD and new copy-number changes accounting for 5% of non-syndrome, idiopathic, and mostly simplex ASD (Rasool et al., 2023). Further research is needed to understand the specific mechanisms through which gene-environment interactions contribute to the development of ASD in humans (West et al., 2023).

Social communication and social interactions

DSM-5 highlights social-emotional reciprocity deficits, ranging from atypical social approaches to diminished inclination to share interests and emotions. These deficits also affect nonverbal communication skills, including verbal and nonverbal communication, eye contact, body language, and gesture understanding (Nadeem et al., 2019). These deficits can lead to feelings of isolation, difficulty forming meaningful connections, difficulty interpreting social cues, and difficulty understanding unwritten rules of social interactions (Rahbar et al., 2021).

Restrictive and repetitive behaviours

Individuals with Autism Spectrum Disorder (ASD) often exhibit restricted and repeated patterns of behaviour, interests, or activities, such as stereotypical physical motions, item usage, or verbal communication. These characteristics can significantly impact a child's daily functioning and social interactions, affecting their intensity and focus on sensory aspects (Lipkin et al., 2015).

Individuals with Disabilities Education Act, 2014

The IDEA for Autism Spectrum Disorder (ASD) regulates service systems for young children with developmental delays, including infants and toddlers, through local Early Intervention programs and preschool special education programs (Qureshia et al., 2022). Psychologists, special educators, social workers, and pathologists work together to assess a child's developmental needs and create individualized intervention plans. *Autism* is a developmental impairment that impacts verbal and nonverbal communication, social interaction, and educational performance. Emotional disturbances take precedence over autism when determining impairment. A child with autism traits after three may be diagnosed if they meet specific criteria (Hayashi, 2020).

Prevalence of Autism spectrum disorder in Pakistan

Pakistan, with a population of over 207.8 million, has the sixth-largest population globally. However, child mental health and learning impairments are often neglected. Autism, a developmental impairment, impacts communication and social interaction, typically appearing before age three and negatively affecting a child's educational performance (Lewis et al., 2021). Features like repetitive behaviours, aversion to environmental changes, and

atypical sensory reactions are often linked to autism. A child with autism traits after age three may be diagnosed (Golzari et al., 2015).

General pediatric and mental health services in Pakistan

Pakistan's healthcare system is underfunded, with public hospitals treating a disproportionate number of low-income patients. Privately operated healthcare facilities are more prevalent among patients from better socioeconomic backgrounds (Furrukh & Anjum, 2020). The lack of dedicated funding for mental health services, particularly for children, exacerbates the neglect of learning impairments in Pakistan, leading to many children with these conditions lacking proper diagnosis and support (Imran et al., 2021). The mental health system is severely understaffed, with only 200 psychiatrists and a handful of pediatric psychiatrists on staff. The highest rate of emotional and behavioural difficulties in children aged 5 to 11 was observed in developing nations, indicating a pressing need for increased attention and resources to address the mental health needs of children in Pakistan, particularly in rural areas (Khan et al., 2024).

Research on ASD is limited to the Eastern world, with most studies focusing on North America, Western Europe, and Australia. The prevalence of ASD in Asia is 0.4%, with no validated research conducted on the Pakistani community. Further investigation into the unique genetic, cultural, and environmental factors contributing to ASD in Pakistan is needed (Mubeen et al., 2024).

Diagnosis of ASD in Pakistan is based on the DSM-5 criteria, with symptomatic therapies and psycho-pharmacological therapies being more commonly used. The healthcare sector's low budget and resources, particularly in rural areas, further exacerbate the issue (Noor et al., 2021).

Social deficits in children with ASD

Autism Spectrum Disorder (ASD) is a genetically heritable condition with a heritability rate of around 50%, more prevalent in males than females (Yell et al., 2017). The exact cause of this disparity remains unexplained, and cultural norms and values can impact the diagnostic criteria used. Environmental factors, such as exposure to viral or bacterial infections during pregnancy, can contribute to ASD (Suhaib et al., 2019).

Characteristics of ASD include restrictions on abilities, distinct areas of focus, and repetitive behaviours in social interactions. However, healthcare personnel in Pakistan have limited understanding and awareness of ASD, leading to outdated beliefs and impeded timely intervention (Fellowes, 2020). Socialization involves cognitive processes, including motivation, emotion, perception, attention, and memory (Chanchani & Willett, 2004). Early brain development in ASD is disrupted, with increased white and grey matter volumes and an imbalance between distant and local cortical communication. Functional connectivity studies show altered patterns of neural activity in regions responsible for processing social information and emotions, further contributing to the challenges experienced by ASD (Dragoo, 2017).

Aptitudes required for socializing: cognition, communication skills, and empathy

Social skills are essential for children to interact and communicate effectively. Children with Autism Spectrum Disorder (ASD) exhibit differences in these areas, including interacting, communicating, and empathizing (Hamdan et al., 2023). The ventral striatum, amygdala, insula, and limbic structures influence emotions. Early brain development in ASD is disrupted, with increased white and grey matter volumes and communication imbalances. Functional connectivity studies show altered neural activity in regions processing social information and emotions, further contributing to ASD's challenges (Rowland, 2020).

Cognition

Cognitive level is a crucial indicator of prognosis for individuals with autism spectrum disorder (ASD). Children with ASD often struggle with emotional reciprocity, nonverbal communication, and understanding facial expressions (Hassan et al., 2022). These deficits can lead to behavioural and emotional issues, such as communication difficulties and emotional regulation. Structural abnormalities in the grey matter cortex and altered neural activity in regions responsible for processing social information and emotions contribute to these challenges (Khalid et al., 2020).

Communication (verbal and non-verbal)

Research revealed that students with autism spectrum disorder (ASD) struggle with social interaction, communication, and collaboration. They often display unique behaviours and are indifferent to their surroundings. They also struggle to join groups or make friends due to their difficulty telling lies (Harris, 2018).

Empathy

Empathy is a complex skill that involves understanding and connecting with others' emotions, including verbal responses and facial expressions. Children with Autism Spectrum Disorder (ASD) often struggle with emotional responsiveness, leading to difficulties in initiating and maintaining social interactions (Khalid et al., 2020). These children usually treat others as inanimate objects, lack interest in relationships, and struggle with language abilities. These social deficits can lead to increased stress, loneliness, anxiety, withdrawal, negative feelings, and adverse health outcomes (Rabia et al., 2022).

Social Stories evidence-based intervention

Diverse treatment approaches have been established over the last two decades to rectify the deficits associated with ASD. In terms of their underlying theoretical framework, mode of delivery, intensity, degree of parental involvement, and comprehensiveness, interventions differ considerably. It has been hypothesized since the early 1990s that social stories (Gray & Garand, 1993) influence the social comprehension and behaviour of individuals with ASD positively. A *social story* is a narrative that delineates a particular circumstance, ability, or notion by utilizing pertinent social indicators, viewpoints, and typical reactions within a predetermined structure and style (Gray, 1994). Gray defines the purpose of a social narrative as conveying accurate social information to a patient in a reassuring manner that is simple to comprehend. Consequently, it is a short narrative intended for an individual that delineates a particular activity and the corresponding behavioural expectations (Constantin et al., 2013).

Social stories impart wisdom and instructions for handling different social circumstances. They depict social situations unique to individuals and circumstances while encouraging self-awareness, self-calming, and self-management. Social stories are designed to elucidate social expectations rather than induce behavioural change. They can utilize visual representations or spoken expressions to convey the problem effectively and coherently (Gray, 2012).

Social stories can be conveyed via various modalities, including independent or caregiver-assisted reading, presentation via audio or video equipment, computer-based programs, or electronic means (Charlop & Milstein, 1989; Gray & Garand, 1993; Hagiwara & Myles, 1999; Rogers & Myles, 2001; Thiemann, 2001; Wetherby et al., 1997). Monitoring individual progress after the implementation of the intervention is a critical element, regardless of how the social narrative is articulated (Grey, 1995; Gray, 1998). Caregivers typically assess the patient's progress by observing the frequency and intensity of the targeted behaviour as it alters (Karkhaneh et al., 2010).

Methodology

The methodology of this research project is described as follows:

This experimental research focuses on determining the need to develop culturally appropriate social stories for children with ASD in Pakistan. The need assessment involved 62 parents of children with ASD selected conveniently from significant cities in Pakistan. The researcher conducted surveys through self-developed questionnaires by the researcher in substantial cities of Pakistan to assess the current use and need for customized social stories for children with ASD. A survey was conducted to determine the current situation of availability and the need for customized social stories in Pakistan to improve the social skills of children with ASD. The data was analyzed using descriptive and quantitative methods. After obtaining permission from the school administration, survey questionnaires were distributed among parents of children with ASD, explaining the purpose of the research study. The researcher personally distributed the questionnaires among the parents, and in cases of illiterate parents, the researcher herself read the statements of the questionnaire and obtained the responses. The researcher also shared the questionnaires in the form of soft copies through the use of Google Forms for the convenience of all the stakeholders.

Data Analysis

The researcher used frequency analysis to analyze the respondents' responses by using SPSS.

Table 1: Frequency distribution based on gender

Responses	Frequency	Percentage
Female	32	51.6
Male	30	48.4
Total	62	100.0

Table 1 shows that of the parents who participated in the study, 51.6% were female parents, and 48.4% were male parents.

Table 2: Frequency distribution based on age

Responses	Frequency	Percentage
26-30	4	6.5
31-35	17	27.4
36-40	22	35.5
41 above	19	30.6
Total	62	100.0

Table 2 shows that 6.5% of the respondents were at the age of 26-30, 27.4% were 31-35, 35.5% were 36-40 and 30.6% were above 41.

Table 3: Frequency distribution based on qualification

Responses	Frequency	Percentage
Middle school	1	1.6
Matric	3	4.8
Intermediate	3	4.8
Graduation	17	27.4
Above	38	61.3
Total	62	100.0

Table 3 shows that 1.6% did middle school, 4.8% did matric, 4.8% did intermediate, 27.4% did graduation, and 61.3% were above.

Table 4: Frequency distribution based on the income of the parents

Responses	Frequency	Percentage
Below 30 thousand	5	8.1
31- 50 thousand	12	19.4
Above 51 thousand	45	72.6
Total	62	100.0

Table 4 shows that 8.1% of parents have incomes below 30 thousand, 19.4% between 31 and 50 thousand, and 72.6% above 51 thousand.

Table 5: Frequency distribution based on family system

Responses	Frequency	Percentage
Joint	38	61.3
Nuclear system	24	38.7
Total	62	100.0

Table 5 shows that 61.3% of the participants had a joint family system, and 38.7% had a nuclear family system.

Table 6: Frequency distribution of family background of participants

Responses	Frequency	Percentage
urban	51	82.3
rural	11	17.7
Total	62	100.0

Table 6 shows that 82.3% of the parents' family backgrounds were urban, and 17.7% were rural.

Table 7: Frequency distribution based on respondents' city

Responses	Frequency	Percentage
Karachi	15	24.2
Quetta	3	4.8
Rawalpindi	6	9.7
Islamabad	6	9.7
Peshawar	8	12.9
Lahore	24	38.7
Total	62	100.0

Table 7 shows that 24.2% of respondents were from Karachi, 4.8% were from Quetta, 9.7% were from Rawalpindi, 9.7% were from Islamabad, 12.9% were from Peshawar and 38.7% were from Lahore.

Table 8: Frequency distribution based on preferable strategies to help children with ASD cope with difficult social situations

Responses	Frequency	Percentage
Social stories	12	19.4
PECS	28	45.2
Son rise program	3	4.8
TEACH	8	12.9
None	11	17.7
Total	62	100.0

Table 8 shows that 19.4% of parents used social stories strategies to help their children cope with difficult social situations, 45.2% used PECS, 4.8% used the Son-Rise program, 12.9% used TEACCH, and 17.7% used no strategy to help their children with ASD.

Table 9: Frequency distribution based on the assumption that "Social story strategy is the best practice to teach children with ASD to cope with difficult situations"

Responses	Frequency	Percentage
Yes	42	67.7
No	20	32.2
Total	62	100.0

Table 9 shows that 43.5% of parents have heard about the social story strategy that helps children cope with difficulties in various social situations, while 56.5% have yet to.

Table 10: Frequency distribution based on social discomfort and uneasiness in specific situations

Situations	Never		Sometimes		Always	
	f	%	f	%	f	%
Visiting a relative	4	6.5	12	19.4	46	74.2
Celebrating religious rituals	4	6.5	13	21	45	72.6
Visiting mosque	7	11.3	12	19.4	43	69.4
Birthday party	5	8.1	13	21	44	71
Visiting cinema	9	14.5	8	12.9	45	72.6
Visiting bank	11	17.7	10	16.1	41	66.1
Visiting shop	6	9.7	11	17.7	45	72.6
Visiting mall	4	6.5	15	24.2	43	69.4
Visiting hairdresser	4	6.5	8	12.9	50	80.6
Visiting doctor	3	4.8	12	19.4	47	75.8
Visiting airport	9	14.5	13	21	40	64.5
Travelling on plane	13	21	11	17.7	38	61.3
Travelling on car	10	16.1	11	17.7	41	66.1
Travelling in rickshaw	11	17.7	11	17.7	40	64.5
Travelling in van	12	19.4	8	12.9	42	67.7
Travelling in train	12	19.4	14	22.6	36	58.1
Travelling on bus	14	22.6	7	11.3	41	66.1
Attending wedding ceremony	5	8.1	9	14.5	48	77.4
Attending funeral	2	3.2	13	21	47	75.8
Attending school/college events	6	9.7	11	17.7	45	72.6

Attending sports event	7	11.3	10	16.1	45	72.6
Attending a concert	9	14.5	9	14.5	44	71
Attending a museum	7	11.3	14	22.6	41	66.1
Visiting a park	10	16.1	6	9.7	46	74.2
Visiting a restaurant	8	12.9	10	16.1	44	71

Table 10 shows that 74.2% of parents feel socially uncomfortable while visiting relatives. 19.4% sometimes, and 6.5% never showed any tantrums. 72.6% of parents always feel socially uncomfortable while celebrating rituals. 21% sometimes, and 6.5% never showed any tantrums. 69.4% of parents always feel socially uncomfortable while visiting the mosque. 19.4% sometimes, and 11.3% never showed any tantrums. 71% of parents always throw tantrums at birthday parties, 21% sometimes and only 8.1% never throw tantrums. 72.6% of parents are always socially uncomfortable while visiting the cinema. 12.9% sometimes, and 14.5% never showed any tantrums. 66.1% of parents always feel socially uncomfortable while visiting the banks. 16.1% sometimes, and 17.7% never showed any tantrums. 72.6% of parents always feel socially uncomfortable while visiting the shop, 17.7% sometimes, and 9.7% never show tantrums. 69.4% of parents always feel social discomfort while visiting the mall, 24.2% sometimes, and 6.5% never show tantrums. 80.6% of parents always feel social discomfort while visiting the hairdresser, 12.9% sometimes, and 6.5% never show tantrums. 75.8% of parents always feel social discomfort while visiting the doctor, 19.4% sometimes, and 4.8% never show tantrums. 64.5% of parents always feel socially uncomfortable while visiting the airport, 21% sometimes, and 14.5% never show tantrums. 61.3% of parents always feel socially uncomfortable while travelling on a plane, 17.7% sometimes, and 21% never show any tantrums. 66.1% of parents are always socially uncomfortable while travelling in the car. 17.7% sometimes, and 16.1% never showed any tantrums. 64.5% of parents always feel socially uncomfortable while travelling on rickshaws. 17.7% sometimes, and 17.7% never showed any tantrums. 67.7% of parents always feel socially uncomfortable while travelling in a van. 12.9% sometimes, and 19.4% never showed any tantrums. 58.1% of parents always feel social discomfort while travelling on a train, 22.6% sometimes, and 19.4% never show tantrums. 66.1% of parents always feel socially uncomfortable while travelling on a bus, 11.3% sometimes, and 22.6% never show tantrums. 77.4% of parents are always socially uncomfortable while attending wedding ceremonies. 14.5% sometimes, and 8.1% never showed any tantrums. 75.8% of parents are always socially uncomfortable while attending a funeral. 21% sometimes, and 3.2% never showed any tantrums. 72.6% of parents are always socially uncomfortable while attending school/college events. 17.7% sometimes, and 9.7% never showed any tantrums. 72.6% of parents always feel socially uncomfortable while attending sports events. 16.1% sometimes, and 11.3% never showed any tantrums. 71% of parents always feel socially uncomfortable while attending a concert, 14.5% sometimes, and 14.5% never show tantrums. 66.1% of parents always feel social discomfort while attending a museum, 22.6% sometimes, and 11.3% never show tantrums. 74.2% of parents always feel social discomfort while visiting a park, 9.7% sometimes, and 16.1% never show tantrums. 71% of parents always feel social discomfort while visiting a restaurant, 16.1% sometimes, and 12.9% never show tantrums.

Table 11: Frequency distribution based on the usefulness of social stories for the improvement of social skills of children with ASD and reduction of discomfort

Situations	Not at all		To some extent		To great extent	
	f	%	f	%	f	%
Visiting a relative	5	8.1	16	25.8	41	66.1
Celebrating religious rituals	4	6.5	21	33.9	37	59.7
Visiting mosque	4	6.5	19	30.6	39	62.9
Birthday party	6	9.7	16	25.8	40	64.5
Visiting cinema	12	19.4	10	16.1	40	64.5
Visiting bank	12	19.4	15	24.2	35	56.5
Visiting shop	5	8.1	15	24.2	42	67.7
Visiting mall	6	9.7	17	27.4	39	62.9
Visiting hairdresser	7	11.3	14	22.6	41	66.1
Visiting doctor	3	4.8	16	25.8	43	69.4
Visiting airport	7	11.3	13	21	42	67.7
Travelling on plane	10	16.1	13	21	39	62.9
Travelling on car	7	11.3	12	19.4	43	69.4
Travelling in rickshaw	10	16.1	9	14.5	43	69.4
Travelling in van	7	11.3	12	19.4	43	69.4
Travelling in train	9	14.5	11	17.7	42	67.7
Travelling on bus	8	12.9	13	21	41	66.1
Attending wedding ceremony	6	9.7	10	16.1	46	74.2
Attending funeral	9	14.5	9	14.5	44	71
Attending school/college events	7	11.3	10	16.1	45	72.6
Attending sports event	6	9.7	11	17.7	45	72.6
Attending a concert	11	17.7	10	16.1	41	66.1
Attending a museum	12	19.4	10	16.1	40	64.5
Visiting a park	4	6.5	10	16.1	48	77.4
Visiting a restaurant	6	9.7	7	11.3	49	79

Table 11 shows that 66.1% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 25.8% to some extent, and 8.1% never show any improvement while visiting relatives. 59.7% of children with ASD show improvement in their social skills to a great extent due to social store activity, 33.9% to some extent, and 6.5% never show any improvement while celebrating religious rituals. 62.9% of children with ASD show improvement in their social skills to a great extent due to social store activity, 30.6% to some extent, and 6.5% never show any improvement while visiting the mosque. 64.5% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 25.8% to some extent, and 9.7% never show any improvement while attending birthday parties. 64.5% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 16.1% to some extent, and 19.4% never show any improvement while visiting the cinema. 56.5% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 24.2% to some extent, and 19.4% never show any improvement while visiting banks. 67.7% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 24.2% to some extent, and 8.1% never show any improvement while visiting shops. 62.9% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 27.4% to some extent, and 9.7% never show any improvement while visiting malls. 66.1% of children with ASD show improvement in their social skills to a

great extent due to social storage activity, 22.6% to some extent, and 11.3% never show any improvement while visiting a hairdresser. 69.4% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 25.8% to some extent, and 4.8% never show any improvement while visiting a doctor. 67.7% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 21% to some extent, and 16.1% never show any improvement while visiting the airport. 62.9% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 21% to some extent, and 16.1% never show any improvement while travelling on a plane. 69.4% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 19.4% to some extent, and 11.3% never show any improvement while travelling in the car. 69.4% of children with ASD show improvement in their social skills to a great extent due to social store activity, 14.5% to some extent, and 16.1% never show any improvement while travelling in rickshaws. 69.4% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 19.4% to some extent, and 11.3% never show any improvement while travelling in a van. 67.7% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 17.7% to some extent, and 14.5% never show any improvement while travelling by train. 66.1% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 21% to some extent, and 12.9% never show any improvement while travelling on a bus. 74.2% of children with ASD show improvement in their social skills to a great extent due to social store activity, 16.1% to some extent, and 9.7% never show any improvement while attending wedding ceremonies. 71% of children with ASD show improvement in their social skills to a great extent due to social store activity, 14.5% to some extent, and 14.5% never show any improvement while attending funerals. 72.6% of children with ASD show improvement in their social skills to a great extent due to social store activity, 16.1% to some extent, and 11.3% never show any improvement while attending school/college events. 72.6% of children with ASD show improvement in their social skills to a great extent due to social store activity, 17.7% to some extent, and 9.7% never show any improvement while attending sports events. 66.1% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 16.1% to some extent, and 17.7% never show any improvement while attending a concert. 64.5% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 16.1% to some extent, and 17.7% never show any improvement while visiting a museum. 77.4% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 16.1% to some extent, and 6.5% never show any improvement while visiting a park. 79% of children with ASD show improvement in their social skills to a great extent due to social storage activity, 11.3% to some extent, and 9.7% never show any improvement while visiting a restaurant.

Table 12: Frequency distribution based on the availability of social stories according to the context of Pakistan in any mediums (online, booklets)

Responses	Frequency	Percentage
Yes	6	9.7
No	56	90.3
Total	62	100.0

Table 12 shows that 9.7% of social stories are according to the context of Pakistan on different mediums, and 90.3% are not according to the context of Pakistan.

Table 13: Frequency distribution based on preferable language to design social stories for children with ASD in Pakistan

Responses	Frequency	Percentage
English	4	6.5
Urdu	13	21
Both	45	72.6
Total	62	100.0

Table 13 shows that 6.5% of the English language will help design social stories for children in Pakistan, 21% in Urdu and 72.6%.

Table 14: Frequency distribution based on LEAST challenging social situations in the community

Responses	Frequency	Percentage
Visiting a shop	26	41.9
Travel in a car	10	16.1
Visiting a mosque	5	8.1
Travel in a rickshaw	7	11.3
Attending school events	14	22.6
Total	62	100.0

Table 14 shows that the LEAST challenging social situations from the mentioned social situations in the community are 41.9% visiting a shop, 16.1% travelling in a car, 8.1% visiting a mosque, 11.3% travelling in a rickshaw, and 22.6% attending school events.

Table 15: Frequency distribution based on the most challenging social situations suitable for developing social stories

Responses	Frequency	Percentage
Visiting a doctor	14	22.6
Visiting a restaurant	13	21
Attending birthday party	9	14.5
Visiting a hairdresser	12	19.4
Attending a wedding	14	22.6
Total	62	100.0

Table 15 shows that the most challenging social situations in the community are 22.6% visiting a doctor, 21% visiting a restaurant, 14.5% attending a birthday party, 19.4% visiting a hairdresser, and 22.6% attending a wedding.

Table 16: Frequency distribution based on the most preferable element in designing a social story for children with ASD

Responses	Frequency	Percentage
Visuals	17	27.4
Language	6	9.7
All of them	39	62.9
Total	62	100.0

Table 16 shows which elements are preferred the most in designing a social story for children: 27.4% visuals, 9.7% language, and 62.9% all.

Findings

According to the findings, the majority of parents whose children have ASD strongly support using social stories in a variety of contexts. Customized social stories are valuable tools for helping kids with ASD understand and navigate social situations, which enhances their social skills. They have a great demand for customized social stories that can cater to the needs of children with ASD in different social situations in which they face difficulties. They emphasized how difficult it is for them to improve their children's social skills, and most of the time, it becomes difficult for their children to communicate with them about how they are feeling and what they expect from them. Customized social stories can be a valuable tool for their children to use at home in specific social situations to make them understand the situation better, as children with ASD are visual learners. They underlined that to make these social stories more accessible and intelligible for their kids, they must be written within Pakistan's cultural and socioeconomic framework. According to the findings after data analysis, parents prefer to have customized social stories in both English and Urdu.

Conclusion

The study's findings indicate that Pakistani parents of children with ASD urgently require personalized social tales. Customized social stories must be developed and made available appropriately for the target audience and sensitive to Pakistan's cultural and social environment. Customized social stories can significantly improve their capacity to mentor and assist their kids at home, creating a more constantly encouraging learning environment. Given their proven benefits for the development of social skills in children with ASD, educational policymakers and practitioners should think about including customized social stories in educational and therapeutic programs for these kids, too. According to the context of Pakistan, customized social stories would be an assistive tool for the parents, which they can use at home or in any other setting. Parents, due to a shortage of time, energy and knowledge, find it challenging to prepare customized work for their children, but with the availability of customized social stories, it would be a time-saving tool for them to use as it is, according to the specific situation, without any hurdle. It is essential to empower the parents or caretakers with updated knowledge and equip them with updated tools so that generalization of teaching and learning skills at home can happen for their children with ASD at home or in any other setting.

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