RESEARCH PAPER

Understanding the Challenges in Screening of Students with Specific Learning Disabilities: Insights from Educators, Parents and Psychologists

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ABSTRACT

This study aimed to explore the challenges faced in screening and supporting students with Specific Learning Disabilities (SLDs) in Punjab, focusing on dyslexia, dysgraphia, and dyscalculia. The objective was to examine the barriers educators, psychologists and parents face in screening these disabilities and to identify the need for culturally relevant screening tools and teacher training. The study used a qualitative approach, conducting 3 focus group interviews with 10 educators, 10 special education professionals, and 10 parents using purposive sampling in the region. The findings revealed that teachers often struggled to differentiate between different types of SLDs due to a lack of standardized, culturally appropriate screening tools. Emotional and social difficulties, such as low self-esteem and social isolation, were also prevalent among students with SLDs. The study highlighted the urgent need for improved teacher education programs, locally developed screening tools, and more systemic support structures to address the needs of students with SLDs.

Introduction

Learning disabilities pose a major challenge for educational institutions, their students and staff. These disabilities are often overlooked and may be met with indifference by educators, hindering children's progress toward academic success. The term "learning disabilities" encompasses a range of issues affecting essential skills, including difficulties with speaking, listening, reading, writing, mathematics and critical thinking, reasoning (Gattullo et al., 2022).

Specifically, learning disabilities commonly affect three main areas: reading (dyslexia), writing (dysgraphia), and mathematics (dyscalculia). These disabilities are characterized by significant challenges in acquiring and using skills related to reading, writing, language and comprehension, reasoning, and numerical concepts (Howe & Roop, 2023).

A Specific Learning Disability (SLD) is defined by specific diagnostic criteria that include persistent challenges in academic and learning skills. To be diagnosed, an individual must exhibit at least one of the following symptoms for a minimum of six months, despite receiving targeted interventions: (1) slow, inaccurate, or effortful word reading; (2) difficulties with reading comprehension; (3) difficulties with spelling; (4) writing challenges; (5) difficulties in mastering number facts, number sense, or calculations; and (6) difficulties in mathematical reasoning. SLD impacts an estimated 5-15% of school-aged children across various cultures and languages (American Psychiatric Association, 2013).

SLDs, also known as learning disorders or learning disabilities, are neurodevelopmental disorders usually identified in early school-aged children, although they may not be recognized until adulthood. These disorders are marked by persistent impairment in at least one of the following areas: reading, written expression, or mathematics (DSM-5, 2013).

Specific Learning Disabilities are caused by genetic, epigenetic, and environmental factors and impair the brain's ability to function efficiently (Xia et al., 2017). They are not attributable to factors such as vision or hearing impairments, intellectual disabilities, other mental or neurological conditions, speech and language disorders, or inadequate educational methods (Al-Mahrezi et al., 2016; Alloway, 2009). Learning disabilities are typically identified through difficulties in acquiring academic skills during schooling (Özyürek, 2003; Arı, 2012).

One of the major challenges for health and education professionals is identifying children with learning disabilities. Many of these children remain undiagnosed while attending regular educational institutions and often experience academic failure as a result (Topbaş, 1998). Ayar et al. (2022) explore the intricate nature and variety of conditions impacting academic and practical abilities in the realm of learning disabilities.

Children with specific learning disorders often experience recurrent academic failures and social isolation (Elksnin & Elksnin, 2004; Livingston et al., 2018). A significant proportion of Specific Learning Disabilities (SLDs) manifest in the reading domain, though these children also tend to underperform in mathematics and writing (Abrams, 1986). SLDs cause substantial impairments in the psychological processes essential for learning, affecting the acquisition, organization, retention, comprehension, and application of both verbal and nonverbal information (Siegel, 2012; Ashraf & Najam, 2017; Brenchley & Costello, 2018). These impairments lead to difficulties in processing and organizing information, resulting in reduced academic output (Firth et al., 2012).

SLD encompasses various academic challenges, with Dyslexia, Dysgraphia, and Dyscalculia being among the most common. Dyslexia is characterized by difficulties in word recognition, spelling, and comprehension (Snowling & Hulme, 2012), while Dysgraphia involves challenges in written expression (Berninger & Richards, 2010). Dyscalculia presents deficits in numerical reasoning and arithmetic (Geary, 2004). These difficulties are universally observed across educational contexts, though inclusive education systems in developed countries often provide accommodations such as individualized education plans (IEPs) to support students with SLD (Friend & Cook, 2017). In contrast, developing countries like Pakistan face systemic challenges, including a lack of differentiated instruction (Hayat et al., 2020).

Emotional and social difficulties are also prevalent among students with SLD. Low self-esteem, social withdrawal, and a sense of hopelessness are common, often stemming from repeated academic failure and a lack of understanding from peers and teachers (Nelson & Harwood, 2011). These challenges may persist into adulthood, affecting students' mental, behavioral, and social well-being (Livingston et al., 2018). Moreover, students with SLD often face difficulties in social interactions and peer relationships (Couzens et al., 2015).

In recent studies, the identification and intervention for students with Specific Learning Disabilities (SLD) have been hindered by several challenges. Cortiella and Horowitz (2014) noted that educators often struggle to distinguish between different subtypes of SLD, leading to delays in both identification and intervention. Similarly, Spektor-Levy and Yifrach (2019) highlighted the lack of professional development in special education as a significant barrier to recognizing these disabilities. A global gap in teacher awareness has been documented, especially in developing countries, where

limited access to professional development compounds the issue (Pullen & Hallahan, 2015).

The absence of culturally and contextually relevant screening tools remains a significant barrier to early identification. In multilingual regions like Punjab, the reliance on subjective observations for diagnosing SLD leads to under- or misidentification (Mather & Wendling, 2012). Research suggests that locally developed screening tools improve the accuracy of diagnosis (Kohli et al., 2021). However, a lack of baseline data on SLD in Pakistan further complicates the situation (Ashraf & Majeed, 2011; Ashraf & Najam, 2017). The need for specialized clinics for early diagnosis has also been emphasized (Jumani et al., 2011).

Barriers to supporting students with SLD are often systemic, particularly in low-resource settings. Insufficient training and a lack of interdisciplinary collaboration hinder the development of effective support structures (Fletcher et al., 2018). Research advocates for targeted professional development and stronger parent-teacher partnerships to address these gaps (Artiles & Ortiz, 2002). Boyle et al. (2016) noted that teachers may identify general learning difficulties but often fail to connect them to specific conditions like Dyslexia or Dysgraphia due to limited training in special education (Shin & Bryant, 2015).

Ahmed et al. (2023) also explored challenges and effective practices in online assessment faced by educators. The study highlights the need for clear and documented monitoring systems tailored to the specific needs of children and youth with special educational requirements. Ongoing training, support, and collaboration among parents, teachers and psychologists are crucial for ensuring the successful implementation of strategies that promote the educational achievement of all students (Rahi et al., 2024). Teacher needs in service training to enhance educational outcomes of students with learning disabilities (Batool et al., 2024).

A well-designed checklist, supported by teacher training and intervention frameworks, could streamline early identification efforts (Mather & Wendling, 2012). Pilot studies in other developing regions have shown promising results, suggesting that professional development focused on SLD terminology and diagnostic processes is crucial for improving educators' ability to support students effectively (Kohli et al., 2021; Karaer & Melekoğlu, 2019).

The literature review showed there are very few studies conducted on understanding the challenges and support mechanisms for students with specific learning disabilities in Punjab Pakistan. So, the current study is aimed at exploring the challenges in screening for students with specific learning disabilities from the perspectives of parents, educators and psychologists in Punjab, Pakistan.

Material and Methods

Design

This descriptive qualitative study employed focus group discussions (FGDs) to explore the perceptions, experiences, and recommendations of parents, educators, and psychologists regarding the identification, challenges, and support strategies for students with Specific Learning Disabilities (SLD).

Sample and Participants

30 participants were recruited through purposive sampling. 10 Parents of children with SLD were selected to understand their perspectives on the challenges faced by their

children, the indicators they observe, and the support provided by schools and the community. 10 Educators, including 5 general and 5 special education teachers were selected. 5 teachers were taken Government Boys High Schools and Government Girls High Schools in district Layyah, Multan, DG Khan, Bahawalpur and Faisalabad. 5 special education educators were recruited from 5 Government Institute for Slow Learners in district Layyah, Multan, DG Khan, Bahawalpur and Faisalabad. 10 Psychologists were recruited from department of special education Punjab. All the psychologists were taken from Government Institute for Slow Learners in district Layyah, Multan, DG Khan, Bahawalpur, and Faisalabad. All had expertise in educational or clinical settings participated to provide a professional perspective on the identification, assessment, and management of SLD. 10 parents were selected whose children were diagnosed with specific learning disabilities in schools.

Inclusion Criteria

Educators: Must have at least 3 years of experience working with students in general or special education, with direct experience in managing students with learning difficulties with age limit 9-14 years and grade level 1-5. Parents: Must be parents of children diagnosed with SLD (e.g., dyslexia, dysgraphia, or dyscalculia) difficulties, with age limit 9-14 years and grade level 1-5. Psychologists: Must have at least 5 years of experience in diagnosing and working with children with learning disabilities difficulties with age limit 9-14 years and grade level 1-5.

Exclusion Criteria

Individuals without prior experience or knowledge of learning disabilities. Participants who do not have direct interaction with children with SLD or have limited exposure to SLD.

Measures

Interview Guide

The FGDs were structured using a comprehensive interview guide developed based on the DSM-5 criteria for SLD and existing literature. The guide consisted of 29 open-ended questions.

Demographic Questionnaire

A short demographic questionnaire was used to collect information on participants' background, such as age, gender, profession, years of experience, and familiarity with SLD.

Procedure

FGDs were conducted separately for each group in a neutral and comfortable setting to facilitate open and honest discussions. First FGD were conducted with 10 educators. Informed consent was sent to the head/principal of the concerned schools. Formal invitations were sent to all the teachers to inform date and venue for focus group discussion. Focus group discussion was started with the brief introduction of the researcher. All the participants were briefed about the objectives of the discussion. Interview guide was distributed among all the participants. A trained moderator facilitated the discussions, ensuring all participants contributed. The sessions lasted 60–90 minutes. All the responses were recorded carefully.

The second focus group discussion (FGD) was conducted with 10 psychologists recruited from the Department of Special Education. Informed consent was obtained from the head of the department, and formal invitations were sent to the participants, detailing the date and venue of the discussion. The session began with a brief introduction of the researcher, followed by an explanation of the objectives. An interview guide was shared with all participants to provide clarity on the discussion topics. A trained moderator facilitated the discussions, ensuring all participants contributed. The discussion lasted approximately 60–90 minutes, with all responses carefully recorded for analysis.

The third focus group discussion was conducted with 10 parents of children with special needs. Participants were identified through school records, and informed consent was obtained beforehand. Parents were invited via formal invitations, which included details about the session's date, time, and location. The discussion started with an introduction by the researcher, who also explained the objectives and shared the interview guide to outline the discussion points. The session lasted 60–90 minutes, with all responses recorded for further analysis.

Ethical Considerations

Ethical approval was obtained from the Institutional Review Board. Written informed consent was collected from all participants, and confidentiality was ensured. Participants were informed that they could withdraw from the study at any time.

Data Analysis

Thematic analysis was used to analyze the FGD data. Familiarization was done by reading and re-reading the transcripts to become deeply familiar with the data. Initial Coding was applied by identifying significant phrases or sections of text that pertain to the research questions. Themes were generated by grouping similar codes into potential themes. Finalizing of Theme was done by refining the analysis to highlight the most important findings related to SLD identification, challenges, and support strategies.

Reliability and Validity

The reliability of qualitative research, particularly in descriptive and content analysis, largely depends on the consistency of the coding process. For categories to be reliable, another researcher analyzing the same data should be able to achieve similar results (Tavşancıl & Aslan, 2001). This ensures that the interpretation of categories remains stable over time and does not vary between researchers. To enhance reliability, iterative analysis is recommended, as it allows for a deeper understanding of the data (Baltacı, 2017). In this study, the coding reliability was evaluated by analyzing the data twice at three-week intervals. This approach ensured that the researcher maintained focus without becoming overly familiar with the data during the process. Internal consistency of the coding was checked, and the reliability was calculated using the agreement ratio formula: $\Delta = C \div (C + \partial) \times 100$, where Δ represents the reliability coefficient, C is the number of codes agreed upon, and ∂ is the number of codes with disagreement. The reliability value was found to be 0.91, which is well above the acceptable threshold of 0.70 for inter-rater or intra-rater reliability (Tavşancıl & Aslan, 2001). This indicates a high level of consistency in the coding process for this study.

Results and Discussion

Table 1

Theme	Codes	Description
1. Limited Awareness of SLD	Lack of familiarity with SLD terms, misconceptions, lack of identification method.	Highlights educators' and parents' limited knowledge of SLD and its

Theme	Codes	Description
		subtypes.
2. Academic Difficulties	Struggles in reading, writing, and math; decoding issues, no independent reading; poor retrieval, lack of concentration.	Describes the specific learning challenges faced by students.
3. Social and Emotional Impact	Low self-esteem, social withdrawal, low self-efficacy, parental helplessness.	Explores how SLD affects students' emotional well-being and social interactions.
4. Lack of Indigenous Tools	Absence of screening checklists, Need for composite SLD checklist for screening	Addresses the gap in culturally relevant SLD screening tools for Punjab.
5. Barriers to Support	Lack of teacher training, resource constraints for screening, minimal collaboration among general and special education.	Identifies systemic challenges in addressing SLD in educational settings.
6. Recommendations for Checklist	Suggestions for domains, simplicity, and adaptability in the tool.	Proposes criteria for a practical screening checklist tailored to local needs.

The table 1 showed six themes generated from focused group discussion. So the findings showed different codes and description for those six themes. Theme 1: Limited Awareness of SLD includes codes such as lack of familiarity with SLD terms, misconceptions, and a lack of identification methods, highlighting the limited knowledge among educators and parents about SLD and its subtypes. Theme 2: Academic Difficulties focuses on challenges students face, including struggles in reading, writing, and math; decoding issues; absence of independent reading; and difficulties with retrieval, concentration, and memory. Theme 3: Social and Emotional Impact explores the effects of SLD on students' emotional and social well-being, represented by codes like low self-esteem, social withdrawal, low self-efficacy, and parental helplessness. Theme 4: Lack of Indigenous Tools addresses the absence of culturally relevant screening checklists in Punjab and emphasizes the need for a composite SLD checklist for effective identification and support. Theme 5: Barriers to Support identifies systemic issues such as lack of teacher training, resource constraints for screening, and minimal collaboration between general and special education sectors. Finally, Theme 6: Recommendations for Checklist proposes suggestions for domain-specific checklist design, simplicity for user-friendliness, and adaptability to local needs, ensuring the development of a practical screening tool tailored to the context.

Table 2
Distribution of Frequencies and Codes for Focus Group Themes

Themes	Codes	F	
1. Limited Awareness of SLD	• Lack of familiarity with SLD	21	
	• Misconceptions about SLD	13	
	• Lack of identification method	17	61
	• Lack of proper assessment record of students with SLD	10	
2. Academic Difficulties	• Struggles in reading, writing, and math	19	
	• Word decoding issues, lack of phonetic recognition, reluctant reading, no independent reading	23	
	• Incomplete sentences, reverse writing, Inconsistent spacing between words and sentences	14	74
3. Social and Emotional Impact	• Low self-esteem	18	
	• Social withdrawal	11	58
	• Low self-efficacy	20	
	• Parental helplessness	9	
4. Lack of Indigenous Tools	• Absence of indigenous checklists in Punjab	23	
	• No categorization of students with SLD due to lack of effective screening checklist	17	65
	• Need of composite SLD checklist for screening	25	
5. Barriers to Support	• Lack of teacher training, lack of intervention method for handling students with SLD	10	
	• Resource constraints for referral and screening	8	33

	• Minimal collaboration among general education and special education	15	
6. Recommendations for Checklist	• Suggestions for domain specific indigenous checklist	19	47
	• Ensure the tool is simple and applicable across general and special education.	13	
	• Provide training for teachers on checklist implementation.	15	

Table no. 2 showed themes with codes and frequencies of participants. The findings are categorized into six main themes with corresponding codes. In the Theme 1, 4 codes appeared with frequency of 61. The Theme 2, 3 also generated with 4 codes and 74 and 58 frequencies respectively. In the Theme 4 and 5, 3 codes appeared with the frequencies of 65 & 33 respectively. The Theme 6 contained 4 codes and 47 frequencies.

Discussion

Specific Learning Disabilities (SLD), encompassing Dyslexia, Dysgraphia, and Dyscalculia, significantly impact students' academic and social outcomes in their academic sphere. So, the focused group discussions were conducted to explore educators, parents and psychologist' perspectives on the challenges associated with identifying, screening and addressing SLD in general and special education settings in Punjab, Pakistan.

Research showed that many educators lack a clear understanding of Specific Learning Disabilities (SLD), including Dyslexia, Dysgraphia, and Dyscalculia. Educators, parents and psychologists' exhibited limited awareness of the terms Dyslexia, Dysgraphia, and Dyscalculia. Some participants recognized the manifestations of these conditions such as difficulty decoding words or organizing text. Most of the participants lacked formal terminologies and subtypes in identifying these specific disabilities. Cortiella and Horowitz (2014) reported that educators often have difficulty distinguishing between different subtypes of SLD, which leads to delays in identification and intervention. Similarly, Spektor-Levy and Yifrach (2019) emphasized that the lack of professional development in special education topics results in inadequate recognition of these disabilities. Teachers' limited exposure to evidence-based strategies for identifying and supporting students with Dyslexia, Dysgraphia, and Dyscalculia has been documented in multiple studies. Research highlights a global gap in teacher awareness, with developing countries facing additional barriers due to limited professional development opportunities (Pullen & Hallahan, 2015).

The findings also demonstrated various academic difficulties faced by the students with SLD form the perspectives of all participants. The findings are in line with previous studies. Dyslexia is often characterized by difficulties in word recognition, spelling, and comprehension (Snowling & Hulme, 2012), while Dysgraphia involves challenges in written expression and reverse writing (Berninger & Richards, 2010). Dyscalculia presents as deficits in numerical reasoning and arithmetic operations (Geary, 2004). Research depicted the universality of academic challenges in SLD, irrespective of the educational context. However, inclusive education models in developed countries provide accommodations such as individualized education plans (IEPs) to support these students (Friend & Cook, 2017). In contrast, developing countries like Pakistan lack systemic support for differentiated instruction (Hayat et al., 2020).

Participants observed low self-esteem, social withdrawal, and low self-efficacy among students with SLD. These challenges were attributed to repeated academic failure and lack of understanding from peers and teachers. Emotional difficulties are well-documented among students with SLD, with studies linking persistent learning challenges to anxiety, depression, and disengagement (Nelson & Harwood, 2011). SLD is associated with challenges in behavioral, mental, and social well-being, which may persist or intensify into adulthood (Livingston et al., 2018). Alongside the academic difficulties, they also

experience sense of hopelessness and helplessness and emotional distress. Some students with LD face difficulties engaging in social and peer interactions (Couzens et al., 2015).

Participants unanimously emphasized the absence of culturally and contextually relevant screening tools for SLD. Current practices rely on subjective observations, often leading to under- or misidentification. Effective screening tools must account for cultural and linguistic diversity (Mather & Wendling, 2012). In Punjab, where education systems cater to a multilingual population, the lack of an indigenous checklist is a significant barrier to early identification. Studies from South Asia suggest that locally developed tools improve the accuracy and reliability of SLD diagnosis (Kohli et al., 2021). According to researchers, no baseline data is available for SLD in the department of special education, Punjab to date. Several studies found the presence of SLDs in Pakistan (Ashraf & Majeed, 2011; Ashraf & Najam, 2017; Khalid & Anjum, 2019; Malik et al., 2013). However, the exact number of students with SLD remains unclear, partly due to the lack of screening facilities (Ashraf & Majeed, 2011; Farukh & Vulchanova, 2014; Ashraf & Najam, 2014, 2017; Jumani et al., 2011; Rehman & Arif, 2006) have advocated for the establishment of clinics dedicated to the early diagnosis of dyslexia in Pakistan. The study highlighted the significance of recognizing and addressing the diverse educational problems faced by students with Down syndrome (Amin et al., 2023).

The participants also explored barriers to support students with SLD in general and special education. Systemic barriers such as insufficient training and lack of interdisciplinary collaboration are common in low-resource settings (Fletcher et al., 2018). Research advocates for professional development programs and parent-teacher partnerships to address these gaps effectively (Artiles & Ortiz, 2002). According to Boyle et al. (2016), while educators may notice general learning difficulties, such as struggles with reading or organizing text, they often fail to connect these challenges to specific conditions like Dyslexia or Dysgraphia. This gap in knowledge is attributed to insufficient training programs on SLD provided during teacher education and professional development sessions (Shin & Bryant, 2015).

The study also explored recommendations for indigenous SLD screening checklist for proper screening and diagnosis for students with SLD in Punjab. The findings are supported by the previous studies. A well-designed checklist can streamline early identification efforts, particularly when complemented by teacher training and intervention frameworks (Mather & Wendling, 2012). Pilot studies of such tools in other developing regions have shown promising results (Kohli et al., 2021). For example, Gokool-Baurhoo and Asghar (2018) found that a lack of structured training perpetuates misconceptions about these disabilities, with many teachers associating them with low intelligence or laziness rather than specific neurological challenges. Studies like those by Karaer and Melekoğlu (2019) suggest that professional development focused on SLD, including terminology and diagnostic processes, is critical for improving educators' ability to support affected students. Without this, educators may continue to rely on general observations without addressing the root causes of learning difficulties effectively and they need teacher training (Batool et al., 2021).

Conclusion

The study highlights the significant challenges faced by educators and students concerning Specific Learning Disabilities (SLD), particularly in developing countries like Pakistan. It is evident that SLDs, including Dyslexia, Dysgraphia, and Dyscalculia, severely impact students' academic achievement, self-esteem, and social well-being. However, the identification and intervention for students with SLDs remain hindered by insufficient teacher training, a lack of culturally and contextually relevant screening tools, and systemic barriers to effective support. These issues are exacerbated in low-resource settings where access to specialized services and support structures is limited. Despite

these challenges, the study emphasizes the need for targeted interventions, better training for educators, and the development of locally relevant diagnostic tools to address the needs of students with SLD.

Recommendations

The study emphasizes the need for improved teacher training, particularly in recognizing and supporting Specific Learning Disabilities (SLDs) through evidence-based strategies. Culturally relevant screening tools are crucial for accurate identification, especially in multilingual regions, and could significantly enhance early intervention. Systemic support mechanisms, such as specialized clinics and interdisciplinary collaboration, are necessary to provide comprehensive care for students with SLDs. Teachers, parents, and health professionals must work together to create a supportive environment. These steps will not only improve academic outcomes but also contribute to the emotional well-being of students with learning difficulties.

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