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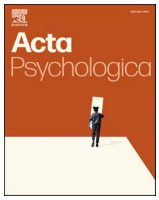

Assessing social and emotional learning of children in India: Perspectives from parents and teachers☆

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ABSTRACT

Social and Emotional Learning (SEL) is an essential component of early childhood development. However, low- and middle-income countries often lack appropriate assessment tools. The Strengths and Difficulties Questionnaire (SDQ) is well-suited for use in a developing country like India due to its low cost, informant-report format, and robust psychometric properties. Despite its utility, research on the application of the SDQ in India is limited, particularly regarding the correspondence between parents' and teachers' reports. Understanding this correspondence is crucial for equipping clinicians and educators to identify children requiring early intervention confidently. This study aimed to (1) compare parents' SDQ responses for children with Typical Development (TD) and Developmental Disabilities (DD), (2) compare teachers' SDQ responses for these groups, and (3) examine parent-teacher agreement in reporting SEL for children with TD and DD. Participants included parents and teachers of 407 children with TD and 59 children with DD, aged 4–8 years, from diverse socioeconomic backgrounds in Chandigarh, Himachal Pradesh, Punjab, Haryana, and the National Capital Region of India. Results revealed that parents of children with TD reported fewer concerns across all SDQ scales—Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention, Peer Relationship Problems, and Prosocial Behaviour—than parents of children with DD. Teachers' responses mirrored this pattern. However, parents of children with TD reported more concerns than teachers on three scales, while parents of children with DD consistently reported more concerns than teachers across all scales. These findings demonstrated the usefulness of taking a multi-informant approach to assessing children's SEL.

1. Introduction

An increasing concern among parents and clinicians is the need to screen children for social and emotional learning (SEL; Owens et al., 2015). Social and emotional competence helps children build close relationships and experience emotions within appropriate social and cultural contexts (Chen, Squires, Chen, Wu, & Xie, 2019; Gehlbach & Chuter, 2020). SEL plays a vital role in young children's development and school readiness, both of which are critical for later academic success (Chen et al., 2019; Damodaran, Thayyullathil, Tom, & Sivadas, 2022). Through SEL, children learn to apply knowledge, skills, and attitudes to navigate peer relationships, regulate emotions, and make responsible decisions (Domitrovich, Durlak, Staley, & Weissberg, 2017).

Growing recognition of social and emotional problems in children has heightened awareness among clinicians and parents about their potential adverse outcomes, including poor academic achievement and psychiatric disorders (Briggs-Gowan & Carter, 2008; Hunt, Slack, & Berger, 2017). Despite this awareness, screening tools for SEL face challenges like those used for developmental delay, such as insufficient training for paediatricians, which often results in reliance on clinical impressions alone. Furthermore, the absence of systematic screening in schools and clinics frequently delays the identification of social and emotional difficulties, leading to postponed interventions and placements (Muzzolon, Cat, Santos, & d., 2013; Squires, Bricker, Heo, &

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Twombly, 2001; Taylor et al., 2023). Consequently, assessments of young children's social and emotional competence are often neglected until problems escalate to a severity requiring intensive intervention (Chavez et al., 2024; Squires et al., 2001).

Some screening tools developed in Western countries, such as the Parents' Evaluation of Developmental Status (PEDS) and the Strengths and Difficulties Questionnaire (SDQ), are considered suitable for Low- and Medium-Income Countries (LMIC) such as India (Sheel, Suárez, & Marsh, 2023). But it is vital to understand that culture may influence the understanding of a child's development (Ertem et al., 2007). Children around the world attain developmental milestones at a similar age. However, caregivers' knowledge regarding children's developmental skills appears to differ across cultures (Ertem et al., 2007). Culture influences how emotional competence is defined by parents and the parenting practices adopted by caregivers in emotional socialisation (Qiu & Shum, 2022; Raval & Walker, 2019).

1.1. Parent and teacher assessment of children's social and emotional functioning

Parents are widely regarded as the primary source of developmental and behavioural information about their children, and substantial evidence supports the use of parent-completed screening tools (Glascoe, 1997; Squires, Bricker, & Potter, 1997). Parents play a central role in early identification and intervention, with screening tools enabling them to reflect carefully on their child's abilities and skills (Dawson & Osterling, 1997). Research also shows that parental concerns in one developmental area often signal delays in others (Glascoe, 1998; Ilić, Nikolić, Ilić-Stošović, & Golubović, 2019). Moreover, parents' concerns are relatively easy to elicit, allowing for a family-focused and collaborative approach to addressing developmental problems (Glascoe, 1999). In addition, children may not behave in unfamiliar clinical environments as they do at home, making parents better positioned to provide comprehensive insights into their child's functioning (Hickson, Altemeier, & O'Connor, 1983; Palfrey & Rodman, 1999). Parents of children with developmental disabilities (DD) also tend to report more concerns than those of typically developing (TD) children. Given these advantages, parents are considered suitable informants for completing the SDQ, as they can reliably observe and report on their child's social and emotional functioning (Eisenhower, Baker, & Blacher, 2005; Glascoe, 1997; Nachshen & Minnes, 2005; Watson et al., 2007).

Recently, there has been increasing recognition of teachers' contributions to the screening and diagnostic process for children (Schanding, Nowell, & Goin-Kochel, 2012). Teacher ratings of children's SEL are particularly valuable, as evidence shows that classroom teachers can reliably assess learning effectiveness, with their ratings strongly correlated with both concurrent and later interpersonal and academic outcomes (Dean & Steffen, 1984). Teachers are also able to distinguish, from an early age, between typically developing students and those at risk for antisocial behaviour (Dwyer, Nicholson, & Battistutta, 2006). Screening tools such as the SDQ include parallel parent and teacher forms, allowing for multi-informant assessments. Notably, teachers of children with autism spectrum disorder (ASD) and developmental disabilities (DD) reported greater developmental concerns and more problematic teacher–child relationships (characterized by reduced closeness and increased conflict) compared to children with typical development (TD), providing evidence that the SDQ is a valid tool for identifying children at risk when completed by teachers (Blacher, Howell, Lauderdale-Littin, Reed, & Laugeson, 2014).

Research indicates that teachers often express more concerns than parents about children's development and SEL (Iizuka et al., 2010; Shahrivar, Tehrani-Doost, Pakbaz, Rezaie, & Ahmadi, 2009). However, studies also show low concordance between parent and teacher reports of behavioural and emotional functioning in children with developmental disabilities (DD), with parents typically reporting more problems than teachers (Hundert, Morrison, Mahoney, Mundy, & Vernon, 1997; Llanes, Blacher, Stavropoulos, & Eisenhower, 2020; Marsh & Ng, 2017). This discrepancy may be explained by several factors, including differences in perception rather than actual behaviour, variations in the contexts in which children are observed, and the tendency for certain behaviours to manifest only at home (Foley Nicpon, Doobay, & Assouline, 2010).

A multi-informant approach is widely recommended in educational and clinical settings to ensure accurate assessments of children's development (Li, Fan, & Jin, 2019). Two primary sources are typically used: parent reports and direct assessments. Chen et al. (2022) found strong agreement between these sources, suggesting that combining parent-reported and direct assessments of children's cognitive abilities can enhance the accuracy of early intervention planning. Parent reports also improve accessibility, particularly for families in remote areas or during unprecedented circumstances such as the COVID-19 pandemic. However, discrepancies often arise between parent and teacher assessments, which may be influenced by cultural differences, informant bias, or contextual factors, as children's behaviour can vary significantly at home versus in school (Li et al., 2019). These inconsistencies pose challenges for research on developmental disabilities such as autism. Divergence among informants can affect methodological decisions, compromise research quality, and contribute to inconsistent findings regarding the prevalence of developmental and intellectual disabilities across the spectrum. Ultimately, this lack of agreement risks unclear documentation and increases the likelihood of type I errors (Girard, Courchesne, Degré-Pelletier, Letendre, & Soulières, 2022).

Goodnow and Lawrence (2015) emphasize that development always occurs within context, meaning that a child's social-emotional learning (SEL) must be understood in relation to the ecological and cultural environments they interact with regularly. In India, child-rearing is often a collective endeavor shaped by cultural scripts, family circumstances, and parents' beliefs and experiences. Parental education—particularly that of mothers—plays an essential role in influencing their awareness of children's developmental milestones and SEL. Research shows that highly educated mothers are generally more informed and receptive to these aspects compared to those with limited educational opportunities (Ghosh & Steinberg, 2022). However, in North India, teachers often report parental unavailability and attribute children's behavioural issues to inadequate parental involvement, family environment, and socio-economic conditions. Teachers' own backgrounds and contexts also shape how they interpret and respond to unfamiliar children's behaviours in the classroom (Ramakrishna, Singh, Bambling, Edirippulige, & Teoh, 2023). Evidence from Punjab highlights notable differences in teachers' understanding of SEL across school types: private school teachers tend to demonstrate greater knowledge and awareness than their counterparts in public schools (Kaur & Sharma, 2022). Such discrepancies between parents' and teachers' perspectives underscore the need for policymakers and government bodies to develop streamlined approaches for SEL screening across schools in India.

In India, evidence on the use of the SDQ suggests that this screening tool has yet to be widely used with children. Most published studies focused on adolescents, where the SDQ is completed by parents and teachers (Nair, Ganjiwale, Kharod, Varma, & Nimbalkar, 2017), parents only (Aboobaker, Jangam, Sagar, Amaresha, & Jose, 2019; George et al., 2019), self-report only (Aiswarya et al., 2021; Banerjee, Bhat, & Chatterjee, 2015; Bhola, Sathyanarayanan, Rekha, Daniel, & Thomas, 2016; Dangi & Joseph, 2021; Harikrishnan & Sailo, 2021; Kumar et al., 2016; Patel, Varma, Nimbalkar, Shah, & Phatak, 2020; Sekaran et al., 2024; Shekhawat, Sharma, & Sodha, 2019; Srilatha, Doshi, Reddy, Kulkarni, & Reddy, 2016), and self-report and caregiver report (Michelson et al., 2020). Some studies were conducted on children and adolescents together where parents completed the SDQ (Jacob, Dutta, Kishore, Mehta, & Philip, 2021), and a few studies have been done on children where parents completed the SDQ (e.g., Datta, Ganguly, & Roy, 2018). There is an absence of published research on the use of the SDQ with parents and teachers of children aged 4–8 years (Dheeshan, Venkatesh,

& Lavanya, 2020) and of studies report on the assessment of both clinical and community samples together in one study. Therefore, the current study aims to evaluate if parents and teachers reported different SEL profiles for children with TD as compared to children with DD. Moreover, a comparison between parents and teacher's responses on the SDQ was completed to determine the degree of correspondence for both children with TD and children with DD.

The study aims to test the following hypotheses:

Hypothesis 1. Parents of children with TD will, on average, report lower levels of problems on each of the four scales (emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems) of the SDQ than parents of children with DD, of the same age.

Hypothesis 2. Parents of children with TD will, on average, report higher levels of prosocial behaviour on the SDQ than parents of children with DD, of the same age.

Hypothesis 3. Teachers of TD children will, on average, report lower levels of problems on each of the four scales (emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems) of the SDQ than teachers of children with DD, of the same age.

Hypothesis 4. Teachers of TD children will, on average, report higher levels of prosocial behaviour on the SDQ than teachers of children with DD, of the same age.

Hypothesis 5. Parents will, on average, report children with TD to have lower levels of problems on each of the four scales (emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems) of the SDQ than reported by teachers.

Hypothesis 6. Parents will report children with TD to have higher levels of prosocial behaviour on the SDQ than reported teachers.

Hypothesis 7. Parents will, on average, report the children with DD to have lower levels of problems on each of the four scales (emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems) of the SDQ than reported by teachers.

Hypothesis 8. Parents will report the children with DD to have higher levels of prosocial behaviour on the SDQ than reported by teachers.

2. Metshod

2.1. Research setting

The study was conducted in India, where the education system is broadly divided into two categories: mainstream education and special needs education. In recent years, the Sarva Shiksha Abhiyan programme (2000−2001) has emphasized the importance of inclusive education, leading to the establishment of inclusive schools (Singal, 2006). Inclusive education aims to enhance the education system's capacity to accommodate all learners, including children with TD and DD, and serves as an extension of mainstream schools (Taneja Johansson, 2014). For this study, participants were recruited from private inclusive schools located in both rural and urban areas of Chandigarh, Himachal Pradesh, Punjab, Haryana, and the National Capital Region of India. These states and union territories, situated in North India, are characterized by linguistic diversity, with fluency in Hindi, English, and regional languages being common among the population (Gupta & Roshan, 2020).

2.2. Participants

Participants comprised a convenient sample of parents and teachers of 466 children: 454 with TD and 61 with DD. Children identified as DD were done so based on school records which relied on government hospitals' diagnosis. Data for 47 children with TD and 2 with DD were excluded due to missing data and/or because the participants did not meet the inclusion criteria. Therefore, the final sample consisted of parents and teachers of 407 children with TD and 59 children with DD.

2.3. TD sample

The parents of the TD sample were 276 (68 %) mothers and 131 (32 %) fathers. Parents' age ranged from 23 years to 51 years ($M = 34.75$, $SD = 5.73$). Table 1 provides the distribution of the TD children across four age groups. For the TD sample the majority ($n = 259$, 64 %) were male and 148 (36 %) were female (Table 2). A group of 102 teachers completed the SDQ for the TD sample. The highest educational level and yearly household income for the parents of the TD sample are presented in Table 2. The ages of children with TD ranged from 4 to 8 years ($M = 5.81$, $SD = 1.03$).

2.4. DD sample

The parents of the DD sample were 41 (69 %) mothers and 18 (31 %) fathers. Parents' age ranged from 25 years to 51 years ($M = 35.54$, $SD = 4.44$). The highest educational level and yearly household income for the parents of the DD sample are presented in Table 2. The ages of children with DD ranged from 4 to 8 years ($M = 4.63$, $SD = 0.82$). For the DD sample the majority ($n = 43$, 73 %) were male and 16 (27 %) were female (Table 2). Table 1 provides the distribution of the DD children across four age groups, and Table 2 indicates the sociodemographic characteristics of participants (parents) of children with TD and DD. A group of 36 teachers completed the SDQ for the DD sample.

All participants were offered a choice of either the English-language or Hindi-language versions of the measures. Household income positively correlates with educational attainment among India's rural and urban populations (Pieters & Klasen, 2011). Therefore, it is important to provide access to Hindi-language versions for parents from lower socioeconomic backgrounds, usually rural residents who may not have completed much of their education in English.

Inclusion criteria for participants were parents and teachers of children in the age range of 4–8 years who were citizens of India and could read, write, and speak at least to Primary 6 level in either English or Hindi. Exclusion criteria were parents whose children were not currently attending school.

2.5. Measures

2.5.1. Demographic questionnaire

A demographic questionnaire was designed for this study to collect information from the parents on the child's age, gender, and school class; parent's gender, level of education, age, and yearly family income; and whether the child had been diagnosed as having a disability.

2.5.2. Strengths and difficulties questionnaire (SDQ; Goodman, 2001)

The Strengths and Difficulties Questionnaire (SDQ) was developed in the United Kingdom as a screening tool for assessing social and emotional functioning in children and adolescents aged 2–17 years (Goodman, 2001). It contains 25 items divided into five domains: (a) emotional symptoms, (b) conduct problems, (c) hyperactivity/inattention, (d) peer relationship problems, and (e) prosocial behaviour. For children, the SDQ can be completed by parents and teachers, while an

Table 1
Age groups of the children (TD and DD).

Age groups	Typical development		Developmental disability	
	n	%	*n*	%
4–4.5 years	57	14.00	3	5.08
4.6–5.11 years	166	40.78	21	35.59
6–7 years	125	30.71	11	18.64
7–8 years	59	14.49	24	40.67

Table 2
Sociodemographic characteristics of participants for the typical development (TD) and developmental disability (DD) samples.

Demographic characteristics	TD		DD	
	n	%	*n*	%
Gender (Child)				
Males	259	64	43	73
Females	148	36	16	27
Parent				
Mother	276	68	41	69
Father	131	32	18	31
Highest educational level (parent)				
Middle school	14	3.43	23	39
High school	35	8.63	4	6.78
Diploma	21	5.15	5	8.47
Undergraduate degree	118	28.99	15	25.42
Postgraduate degree	219	53.80	12	20.33
Yearly household income				
< 75 k	67	16.46	28	47.46
75 k – 1.5 Lac	55	13.51	6	10.17
1.6–3 Lac	42	10.31	9	15.26
3.1–5 Lac	90	22.11	4	6.78
5.1–10 Lac	88	21.64	11	18.64
>10.1 Lac	65	15.97	1	1.69

Note: A lakh in Indian rupees is equivalent to one thousand US dollars.

additional self-report version is available for adolescents (Goodman, 1997). Items are rated on a 3-point scale (not true, somewhat true, certainly true). Scoring yields subscale scores for each domain and a total difficulties score, calculated by summing the four problem scales (excluding prosocial behaviour). Results are interpreted using cut-off scores, which categorize responses into 'normal', 'borderline', or 'abnormal' ranges (Goodman, 2001). Table 3 presents the score ranges for each category across the five scales.

The SDQ has been reported to have sound psychometric properties, with an adequate internal consistency (Cronbach's alpha = 0.73), and a high test–retest reliability of $r = 0.62$ (Kersten et al., 2016, as cited in Sheel, Suárez, & Marsh, 2023). The discriminative, comparing clinical and community samples, and convergent validity assessed using the Child Behaviour Checklist were also strong, $r = 0.80$ and $r = 0.50$, respectively, and the specificity and sensitivity were excellent, above 70 % assessed on British children aged 5–15 years (Goodman, 2001; Kersten et al., 2016, as cited in Sheel, Suárez, & Marsh, 2023).

Although the developers of the SDQ offer the option of a Hindi-language version on their website, an examination of this found there to be errors in translation. Hence a further translation was undertaken for the purposes of this study (`Sheel, Suarez, & Marsh, 2023). Evidence for the construct validity of the Hindi-language translation of the SDQ and the psychometric assessment of the tool developed for this study has been provided by Sheel, Suarez, and Marsh (2023).

Table 3
Cut-off scores for the scales of the SDQ and the total difficulties score (parent and teacher forms).

SDQ scales	Normal	Borderline	Abnormal
Parent			
Total Difficulties	0–13	14–16	17–40
Emotional Symptoms	0–3	4	5–10
Conduct Problems	0–2	3	4–10
Hyperactivity/Inattention	0–5	6	7–10
Peer Relationship Problems	0–2	3	4–10
Prosocial Behaviour	6–10	5	0–4
Teacher			
Total Difficulties	0–11	12–15	16–40
Emotional Symptoms	0–4	5	6–10
Conduct Problems	0–2	3	4–10
Hyperactivity/Inattention	0–5	6	7–10
Peer Relationship Problems	0–3	4	0–4
Prosocial Behaviour	6–10	1	2–10

2.6. Procedure

The study was approved by a Human Research Ethics Committee (Ethics Approval Number H8285; Approved on 21st January 2021) and involved administering two screening questionnaires, including the SDQ, to parents of children aged 4–8 years. Data were collected online between August and December 2021 via Qualtrics (Boas, Christenson, & Glick, 2020). Parents could select either the English- or Hindi-language version of the measures, depending on their preference. Prior to participation, all parents received a Participant Information Sheet outlining the study and the nature of the information requested. They were also provided with the option to contact the researcher (HS) with any questions. Informed consent was obtained before parents completed the demographic questionnaire, the PEDS, and the SDQ. Results from the PEDS are reported elsewhere (Sheel, Suárez, & Marsh, 2024).

Parents of children with either typical development (TD) or developmental disabilities (DD) were additionally asked to consent for their child's classroom teacher to complete the SDQ. For those who agreed, teachers were sent either the English or Hindi version of the SDQ, depending on their preference. In total, 102 teachers completed the SDQ (teacher version). The present analysis includes only cases where both parents and teachers provided SDQ data.

2.7. Data analysis

The results were initially described using the classifications provided by the cut-off scores that are available for the SDQ. Following this, MANOVA was used to compare the results from the SDQ scales for the TD versus DD samples by parent and then by teacher report. Finally, paired sample *t*-tests were used to compare parents' and teachers' responses to the SDQ scales for the children with TD and the children with DD.

3. Results

3.1. Distribution of scores for parent and teacher completed SDQ for both children with TD and children with DD by descriptive category

Based on the published cut-off scores, the results from the parents' and teachers' reports on the SDQ were classified as either normal, borderline, or abnormal. The results for these descriptive categories, for both children with TD and children with DD are shown in Table 4.

For the TD sample, on the Total Difficulties score, 81 % of the parents reported their children as normal, 9 % indicated their children were borderline, and 10 % reported their children as abnormal. On the Prosocial Behaviour, for the TD sample, 87 % of parents reported their child as being normal, 10 % indicated borderline functioning, and 3 % reported their child as abnormal. In comparison, for the DD sample, on the Total Difficulties score, 37 % of parents reported their children as normal, 15 % as borderline, and 47 % of as abnormal On the Prosocial Behaviour scale, for the DD sample, 71 % of parents reported that their children were normal, 12 % borderline, and 17 % abnormal (Table 4).

A similar classification to parents was reported by teachers for the TD sample of the Total Difficulties score 86 % of teachers reporting the children as normal, 11 % as borderline, and 3 % as abnormal. The classification of teachers' scores on the Prosocial Behaviour scale for the TD sample was the same as for the parents. However, for the Total Difficulties score, teachers of children with DD reported 33 % as normal, 12 % as borderline, and 54 % as abnormal. Interestingly the same set of teachers also reported 72 % of DD children as normal, 11 % as

Table 4
Classification of scores from parent and teacher reports on the SDQ, for children with TD and with DD.

SDQ domains *n* (%)	Normal				Borderline				Abnormal			
	Parent (TD)	Parent (DD)	Teacher (TD)	Teacher (DD)	Parent (TD)	Parent (DD)	Teacher (TD)	Teacher (DD)	Parent (TD)	Parent (DD)	Teacher (TD)	Teacher (DD)
Total Difficulties	330 (81 %)	22 (37 %)	291 (86 %)	19 (33 %)	38 (9 %)	9 (15 %)	36 (11 %)	7 (12 %)	39 (10 %)	28 (47 %)	10 (3 %)	31 (54 %)
Emotional Symptoms	330 (81 %)	28 (48 %)	317 (94 %)	34 (60 %)	32 (8 %)	8 (13 %)	5 (2 %)	8 (14 %)	45 (11 %)	23 (39 %)	15 (4 %)	15 (26 %)
Conduct Problems	304 (74 %)	25 (42 %)	312 (93 %)	23 (40 %)	56 (15 %)	14 (24 %)	13 (4 %)	14 (25 %)	47 (11 %)	20 (34 %)	12 (3 %)	20 (35 %)
Hyperactivity/ Inattention	320 (74 %)	30 (50 %)	312 (93 %)	28 (49 %)	42 (10 %)	9 (15 %)	13 (4 %)	9 (16 %)	45 (11 %)	20 (35 %)	12 (3 %)	20 (35 %)
Peer Relationship Problems	252 (62 %)	16 (27 %)	275 (82 %)	32 (56 %)	77 (19 %)	17 (28 %)	45 (13 %)	12 (21 %)	78 (19 %)	26 (44 %)	17 (5 %)	13 (23 %)
Prosocial Behaviour	355 (87 %)	42 (71 %)	291 (87 %)	41 (72 %)	39 (10 %)	7 (12 %)	36 (10 %)	6 (11 %)	13 (3 %)	10 (17 %)	10 (3 %)	10 (17 %)

borderline, and 17 % as abnormal on the Prosocial Behaviour scale (Table 4).

3.2. SEL in children with TD and children with DD: reports from parents

Before statistically comparing reports from parents of children with typical development (TD) and children with developmental disabilities (DD) on the five SDQ scales, assumptions for one-way MANOVA were assessed. The assumptions of independence and adequate cell size were met. Univariate normality was examined using Shapiro-Wilk tests, which indicated non-normality across conditions ($p < .05$). Two multivariate outliers were identified, but no data deletion or transformation was performed, as MANOVA is robust to normality violations with group sizes exceeding 30. The groups included children with TD ($n = 407$) and children with DD ($n = 59$). The outliers did not affect the regression model overall (Cook's distance <1) (Allen, Bennett, & Heritage, 2019). No multicollinearity was observed ($rs < 0.484$), and scatterplots indicated linear relationships among dependent variables for all groups. The assumption of homogeneity of variance-covariance matrices was violated ($p < .001$), but MANOVA is considered robust under such violations with sufficient group sizes (Allen et al., 2019).

MANOVA results revealed significant differences between children with TD and DD on all five SDQ scales: Emotional Symptoms ($p < .001$, medium effect), Conduct Problems ($p < .001$, medium effect), Hyperactivity/Inattention ($p < .001$, small effect), Peer Relationship Problems ($p < .001$, medium effect), and Prosocial Behaviour ($p < .001$, small effect) (Table 5).

3.3. SEL in children with TD and children with DD: reports from teacher

Before conducting one-way MANOVA on teacher reports for children with TD and for children with DD on the five scales of the SDQ, assumption testing was performed. The assumptions of independence and sufficient cell size were met. Univariate normality, assessed using the Shapiro-Wilk test, revealed non-normal distribution across all conditions ($p < .05$). Although seven multivariate outliers were identified, they were retained as their scores fell within the SDQ range, and MANOVA is robust to violations of normality when sample sizes exceed 30 participants. The sample consisted of two groups: children with TD ($n = 337$) and children with DD ($n = 57$). The multivariate outliers did not significantly affect the regression model's overall performance, as Cook's distance was less than 1 (Allen et al., 2019). No issues with multicollinearity were detected (rs < 0.675), and scatterplots indicated linearity across all dependent variables and groups. While the assumption of homogeneity of variance-covariance matrices was violated ($p < .000$), MANOVA remains robust to this issue when group sizes exceed 30 participants (Allen et al., 2019). Therefore, a MANOVA was conducted.

The results indicated a significant difference between children with TD and DD across all five SDQ scales: Emotional Symptoms ($p < .001$), Conduct Problems ($p < .001$), Hyperactivity/Inattention ($p < .001$), Peer Relationship Problems ($p < .001$), and Prosocial Behaviour ($p < .05$) (Table 6).

3.4. Correspondence between parent and teacher reports of SEL in children with TD and children with DD

Assumption testing was carried out before conducting a series of 12 paired sample *t*-tests to compare parents and teachers' evaluations of children with TD and children with DD on the SDQ. All scales consisted of outliers; however, outliers were included in the sample as scores that were within the score range of the SDQ. Outliers were assessed by inspecting the boxplots. Data were not normally distributed across all conditions for parents of TD children, as the Shapiro–Wilk's test assessed ($p < .05$). However, the data was normally distributed for parents of DD children ($p > .05$). For teachers of children with TD and DD, the data were not normally distributed across all scales, as Shapiro–Wilk's test assessed ($p < .05$).

Reports from parents and teachers of children with TD were significantly different on four of the six scales of the SDQ; Total Difficulties score ($p < .001$) with medium ($\eta p^2 = 0.68$) effect size; Emotional Symptoms ($p < .001$), with medium ($\eta p^2 = 0.50$) effect size; Conduct

Table 5
Means, standard deviations, and MANOVA statistics for parents of children with TD and parents of children with DD.

SDQ subscales	Parent (TD)		Parent (DD)		*F* (1, 465)	η2
	M	*SD*	*M*	*SD*		
Emotional Symptoms	1.98	1.86	3.79	2.40	44.84*	0.08
Conduct Problems	1.66	1.49	3.23	2.35	47.81*	0.09
Hyperactivity/Inattention	3.92	1.98	5.18	2.50	19.43*	0.04
Peer Relationship Problems	2.22	1.55	3.44	1.52	31.46*	0.06
Prosocial Behaviour	8.02	1.76	7.15	2.21	11.86*	0.02

Note. *$p < .001$.

Table 6
Means, standard deviations, and MANOVA statistics for teachers of children with TD and children with DD.

SDQ subscales	Teacher (TD)		Teacher (DD)		*F* (1,393)	η2
	M	*SD*	*M*	*SD*		
Emotional Symptoms	1.08	1.84	3.84	2.44	99.01***	0.20
Conduct Problems	0.75	1.18	3.26	2.41	150.39***	0.27
Hyperactivity/Inattention	2.45	2.03	5.22	2.33	83.49***	0.17
Peer Relationship Problems	2.03	1.51	3.43	1.54	41.75***	0.09
Prosocial Behaviour	7.99	1.94	7.19	2.23	7.88*	0.02

***$p < .001$; *$p < .05$.

Problems ($p < .001$) with medium ($\eta p^2 = 0.66$) effect size; and Hyperactivity/Inattention ($p < .001$) with medium ($\eta p^2 = 0.72$) effect size For all four scales parents reported more concerns than teachers. However, the difference between parents and teachers was not significantly different on the Peer Relationship Problems ($p = 1.75$) and Prosocial Behaviour ($p = .700$) scales.

Reports from parents and teachers of children with DD were significantly different on all six scales of the SDQ; Total Difficulties score ($p < .001$) with large ($\eta p^2 = 0.92$) effect size; Emotional Symptoms ($p < .001$) with medium ($\eta p^2 = 0.50$) effect size; Conduct Problems ($p < .001$) with medium ($\eta p^2 = 0.54$) effect size; Hyperactivity/Inattention ($p < .001$) with medium ($\eta p^2 = 0.74$) effect size; Peer Relationship Problems ($p = .048$) with small ($\eta p^2 = 0.37$) effect size, with parents reporting more concerns than teachers on all scales. Consistent with this, for Prosocial Behaviour ($p = .042$), teachers reported more prosocial behaviour than parents with a small ($\eta p^2 = 0.28$) effect size. These results are presented in Table 7.

4. Discussion

The aim of this study was to describe the SEL of children in India. Based on previous findings of its suitability, the SDQ was chosen as the instrument for assessing SEL. A comparison of the SEL for children with TD and children with DD was also undertaken. This assessment was completed using both the parent-report and teacher-report versions of the SDQ. This study also aimed to determine whether parents and teachers of children with TD and/or DD differed in their reports of the children's SEL on the SDQ.

An examination of the prevalence of severe problems (i.e., SDQ scores classified as being in the 'abnormal' range) showed that parents of children with DD reported a higher prevalence of severe problems than parents of children with TD across all scales of the SDQ. Of note was the finding that for both groups of parents it was peer relationship problems that had the highest prevalence of severe ratings with a prevalence of 19 % and 44 % for the children with TD and the children with DD, respectively. The same pattern was found for the teacher's reports where children with DD were reported to have a higher prevalence of severe problems across all scales of the SDQ. However, while for the children with TD severe peer relationship problems were again reported to be the most prevalent (5 %), for the children with DD teachers reported the highest prevalence of severe problems for both conduct problems and hyperactivity/inattention (35 % for both). This suggests that parents and teachers of children with DD have different frames of reference when evaluating the children's problems in social and emotional functioning.

The MANOVA analyses revealed that both parents and teachers reported significant differences on all SDQ scales between the community-based (TD) and clinical (DD) samples. These findings were consistent with existing literature where parents and teachers reported increased concerns for children with DD compared to their age-equivalent peers (Becker, Woerner, Hasselhorn, Banaschewski, & Rothenberger, 2004; Emerson, 2005; Strømme & Diseth, 2000), therefore supporting hypotheses 1, 2, 3, and 4. On average, parents and teachers of children with TD and DD expressed more concern on the SDQ's hyperactivity/inattention, conduct problems, and emotional symptoms scales evaluated through the mean difference between the two groups.

Children with developmental disabilities (DD) frequently score high on hyperactivity/inattention due to recurrent difficulties with sustaining attention (Iizuka et al., 2010). Both typically developing (TD) and DD children in India also present with conduct problems, often linked to adverse social conditions such as poverty, family fragmentation, and low socioeconomic status (Ma et al., 2021). Among children with DD, conduct problems may manifest as destruction of personal belongings, deficits in social skills leading to negativity and peer conflict, and acts of vandalism (Crnic, Hoffman, Gaze, & Edelbrock, 2004; Dekker, Koot, Ende, & Verhulst, 2002). Research further shows that children with DD exhibit significant emotional symptoms and conduct problems from an early age, which often persist over time and increase caregiver stress (Crane, Sumner, & Hill, 2017; van den Heuvel, Jansen, Reijneveld, Flapper, & Smits-Engelsman, 2016; Herring et al., 2006). Teachers are well positioned to identify such difficulties, as they observe children daily in the classroom and can compare behaviours across peers of similar age (van den Heuvel et al., 2016).

In conclusion, the current results show that the SDQ is an appropriate screening tool for use in India because it allowed for the identification of difficulties within each of the two groups of children. In addition, the results from the SDQ allowed for a meaningful differentiation between children with TD and children with DD, based on both parent and teacher reports. The finding that more concerns were reported for the clinical sample than the community sample, by both parents and teachers, is consistent with previous literature and demonstrates known group validity for the SDQ as a measure of social and emotional functioning for children in India.

4.1. Correspondence between parent and teacher reports of SEL

Overall, the comparison between parent and teacher ratings on the SDQ for the children with TD and DD showed that parents had significantly greater concerns than teachers on four scales of the SDQ (Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention, and Total Difficulties scale) contrary to hypotheses 5, 6, 7 and, 8. However, there was no significant difference between parents and teachers on Peer Relationship Problems and Prosocial Behaviour for children with TD.

A plausible reason for these findings is that parents are more likely to report decreased positive behaviour and increased problem behaviour. In comparison, teachers are more likely to rate children relative to other students in the class. Specifically, the demands primary school places on children may be an example of how the environmental expectations influence the children's behaviour, and hence the rating they receive (Rogge, Koglin, & Petermann, 2018). This explanation is consistent with the findings in this study.

Similar findings were also reported in New Zealand (Kersten, Vandal, Elder, & McPherson, 2018) and Brazil (clinical and community-based sample; Cury & Golfeto, 2003; Goodman, Ford, Richards, Gatward, & Meltzer, 2000), where parents expressed more concerns than teachers. In a study conducted in Gaza, significant correlations were found between parent and teacher reports on the Total Difficulties score, and the Hyperactivity/Inattention, Conduct Problems, and Emotional

Table 7
Means, standard deviations, t-statistics, and effect sizes for parent and teacher reports on the SDQ for children with DD and children with TD.

SDQ subscales	TD							DD						
	Parents		Teachers		t (337)	p	Cohen's d	Parents		Teachers		t (57)	p	Cohen's d
Total Difficulties	9.75	4.89	6.32	5.16	9.04	< 0.001	0.68	15.70	6.65	10.07	6.69	5.28	< 0.001	0.92
Emotional Symptoms	2.02	1.90	1.08	1.84	6.70	< 0.001	0.50	3.77	2.22	2.10	2.20	4.20	< 0.001	0.50
Conduct Problems	1.62	1.45	0.75	1.18	8.87	< 0.001	0.66	3.26	2.41	1.43	1.89	5.01	< 0.001	0.54
Hyperactivity/Inattention	3.90	1.98	2.45	2.03	9.81	< 0.001	0.72	5.22	2.53	3.73	2.35	3.61	< 0.001	0.74
Peer Relationship Problems	2.19	1.57	2.03	1.51	9.04	0.175	0.10	3.43	1.54	2.79	1.86	2.02	0.048	0.37
Prosocial Behaviour	8.04	1.71	7.99	1.94	0.385	0.700	0.20	5.98	1.96	6.84	2.21	−2.07	0.042	−0.028

Symptoms scales (Thabet, Stretch, & Vostanis, 2000).

Although parents and teachers differed on four domains of the SDQ, the differences between their reports on the Prosocial Behaviour and Peer Relationship Problems scales, for children with TD, were not significantly different. However, there may be a low level of awareness among parents and teachers regarding social problems being experienced by children (Van Widenfelt, Goedhart, Treffers, & Goodman, 2003). Hartas (2011) indicated a decline in parent-rated behaviour and social difficulties for children between 3 and 5 years of age. In addition, the effects of the COVID-19 pandemic may also have contributed to the results obtained in this study. With online education taking place across schools in India, parents and teachers would have been unable to identify whether children had any problems with social interaction, which are more able to be identified in a face-to-face classroom setting through students' body language and nonverbal cues (Jena, 2020; Nambiar, 2020). Parents and teachers often differed in their assessments of children's social learning during the COVID-19 pandemic. Teachers emphasized reduced communication, social anxiety, and limited playtime. At the same time, parents reported social deprivation that added pressure, particularly in dual-working households where parents could not cater to the child's needs (Watts & Pattnaik, 2023). In India, the rapid shift to digital platforms helped schools share updates but reduced opportunities for direct parent–teacher discussions about children's social-emotional development. At the same time, children's increasing use of social media leaves many parents and teachers unsure how to address its impact on social challenges such as peer communication (Sarwatay, Raman, & Ramasubramanian, 2021). These differences and uncertainties reflect a broader lack of awareness among both groups in identifying and responding to children's evolving social challenges.

The results indicate that, in India, parents and teachers differ in their concerns about children's social and emotional functioning, particularly for those with developmental disabilities (DD), with parents reporting more difficulties than teachers across all domains. Low agreement between informants can complicate clinical decision-making (Fält, Wallby, Sarkadi, Salari, & Fabian, 2018), yet reliance on a single source risks under-identifying children with problems (Brown et al., 2006). Incorporating teacher ratings is therefore essential, as this may improve the accuracy and efficiency of referral decisions. In the present study, parents and teachers reported broadly similar concerns on the SDQ scales, suggesting that multi-informant use of the SDQ enhances the detection and prediction of problems compared to single-informant reports (Goodman, Ford, Corbin, & Meltzer, 2004). Children's ability to recognize emotions and anticipate others' responses is critical for regulating their own behaviour and reducing problem behaviours (Egger & Angold, 2006). Conversely, inappropriate behaviours may reflect difficulties in emotional understanding rather than deficits in language or cognition (Hughes & Ensor, 2009). These findings underscore the importance of gathering information from multiple sources, and using parallel parent and teacher versions of the same measure strengthens the validity of the assessment process.

4.2. Limitations and future recommendations

The SDQ data reported in this study were collected online during the COVID-19 pandemic, as the schools were providing online education. This means that parents were spending more time with the children that usual, and teachers less. However, despite the difference in the sampling of the children's behaviour, the results from the current study are generally consistent with those collected by studies conducted pre-pandemic. Also, the generalisability of the current results may be limited by the fact that the study comprised only children aged 4–8 years and the sample was collected from a few states in North India. This is not a national representation of India, which comprises 28 states and multiple languages. Despite this limitation, the samples were collected across a range of states and social-economic groups.

This study used English and translated Hindi SDQ forms as these languages are dominant in North India. However, India is multilinguistic, so in future studies the questionnaires may need to be adapted to regional languages to cater for a specific population. Studies have shown that parents of children from low socioeconomic backgrounds, who often speak their native languages, can better report on their children when interviewed in that native language (Tsimpli et al., 2020). In India, educational policies differ significantly across genders, states, and regions (Bhatty, Saraf, & Gupta, 2017; Klaus & Tipandjan, 2015; Mitra, Mishra, & Abhay, 2023). Mitra et al. (2023) examined out-of-school (OOS) girls and highlighted regional disparities where the Northern Upper Ganga Plains in Uttar Pradesh were among the most vulnerable areas, while southern states such as Goa and Kerala were the least vulnerable and several factors contribute to these differences. Gender inequality remains more pronounced in northern India, where boys are often prioritized for schooling over girls. Socio-economic conditions, caste system, and state-level education policies further shape access to education. For example, in many southern states, a student's name is removed from the school register if they are absent for a specified period, whereas in northern states such measures are not consistently enforced (Bhatty et al., 2017; Klaus & Tipandjan, 2015; Mitra et al., 2023). Such inconsistencies in policy and practice across regions limit the generalizability of findings on educational access in India (Bhatty et al., 2017).

Also, the current study did not investigate whether sociodemographic factors, such as household income and education, impacted parents' evaluation of their child. Indian parents have been reported to often be unwilling to address children's developmental concerns and be hesitant to consider special education for children categorised as “slow learners” (Karande, Kanchan, & Kulkarni, 2008). Future studies making a more nuanced examination of parent sociodemographic factors and the impact on their evaluation of their child's social and emotional functioning may be useful. Although this study has its limitations, its findings have provided important insights into the SEL of children in India and it has demonstrated an effective and efficient way to assess children's SEL.

5. Conclusion

The finding that the SDQ differentiated between children with TD and DD gives further confidence for its use with children across a range of abilities, and the emphasis on parents' concerns about screening children provides an understanding of parent's developmental literacy. In addition, following the American Association of Paediatrics (AAP) recommendation for screening children beyond 3 years, use of the SDQ brought forward parents and teachers' evaluations of children aged 4–8 years, providing useful insight into their concerns and their developmental literacy regarding children. Goodman et al. (2000) reported that multi-informant reporting on the SDQ could increase the detection of childhood behavioural problems and improve access to effective interventions. Furthermore, parents can bring forward concerns that would prompt further investigation of at-risk children, even if the number of false positives is higher for parents' SEL concerns than teachers' concerns. Cheng and Ding (2023) reported that parenting styles and parent-child relationships also greatly influence informant assessment of their child. In LMICs, such as Bangladesh, the SDQ was able to distinguish between clinical and community samples, resulting in the SDQ being utilized with greater frequency. The results of this study showed that this could also apply to other LMICs, such as India (Mullick & Goodman, 2001). Therefore, using the SDQ will not only provide parents' evaluation of their child's SEL, it will also facilitate teacher evaluation of children on a regular basis, initiating further assessments and interventions as required (Wake, Gerner, & Gallagher, 2005).

Declaration of the use of AI

The authors did not use any AI tools and take full responsibility for

the content of the publication.

CRediT authorship contribution statement

Hina Sheel: Project administration, Methodology, Investigation, Formal analysis, Writing – original draft. **Lidia Suárez:** Supervision, Methodology, Writing – review & editing. **Nigel V. Marsh:** Supervision, Methodology, Formal analysis, Conceptualization, Writing – review & editing.

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Data availability

The research data includes confidential information such as child, parent and teacher's collected during the submission process and will be made available on request.

References

Aboobaker, S., Jangam, K. V., Sagar, K. J. V., Amaresha, A. C., & Jose, A. (2019). Predictors of emotional and behavioral problems among Indian adolescents: A clinic-based study. *Asian Journal of Psychiatry, 39*, 104–109. https://doi.org/10.1016/j.ajp.2018.12.002

Aiswarya, R., Kumaravel, K., Ramya, S., Manoj, K., Anurekha, V., & Sampathkumar, P. (2021). A cross-sectional study of mental health status of rural school going students in late adolescence period in southern India. *Indian Journal of Neonatal Medical Research, 9*(3). https://doi.org/10.7860/IJNMR/2021/51193.2309

Allen, P. J., Bennett, K., & Heritage, B. (2019). *SPSS statistics: A practical guide* (4th ed.). Cengage Learning.

Banerjee, M., Bhat, A. A., & Chatterjee, A. (2015). A comparative study of mental health problems among 11-17 year old Indian school children living in areas with persistent political violence and children of the same age group living under standard conditions. *Sri Lanka Journal of Child Health, 44*(2). https://doi.org/10.4038/sljch.v44i2.7990

Becker, A., Woerner, W., Hasselhorn, M., Banaschewski, T., & Rothenberger, A. (2004). Validation of the parent and teacher SDQ in a clinical sample. *European Child & Adolescent Psychiatry, 13*(S2). https://doi.org/10.1007/s00787-004-2003-5. II11–16.

Bhatty, K., Saraf, R., & Gupta, V. (2017). Out-of-school children: Some insights on what we know and what we do not. *Economic and Political Weekly*, 69–76. http://www.jstor.org/stable/26697955.

Bhola, P., Sathyanarayanan, V., Rekha, D. P., Daniel, S., & Thomas, T. (2016). Assessment of self-reported emotional and behavioral difficulties among pre-university college students in Bangalore. *India. Indian Journal of Community Medicine, 41*(2), 146–150. https://doi.org/10.4103/0970-0218.177536

Blacher, J., Howell, E., Lauderdale-Littin, S., Reed, F. D. D., & Laugeson, E. A. (2014). Autism spectrum disorder and the student teacher relationship: A comparison study with peers with intellectual disability and typical development. *Research in Autism Spectrum Disorders, 8*(3), 324–333. https://doi.org/10.1016/j.rasd.2013.12.008

Boas, T. C., Christenson, D. P., & Glick, D. M. (2020). Recruiting large online samples in the United States and India: Facebook, mechanical Turk, and Qualtrics. *Political Science Research and Methods, 8*(2), 232–250. https://doi.org/10.1017/psrm.2018.28

Briggs-Gowan, M. J., & Carter, A. S. (2008). Social-emotional screening status in early childhood predicts elementary school outcomes. *Pediatrics, 121*(5), 957–962. https://doi.org/10.1542/peds.2007-1948

Brown, J. D., Wissow, L. S., Gadomski, A., Zachary, C., Bartlett, E., & Horn, I. (2006). Parent and teacher mental health ratings of children using primary-care services: Interrater agreement and implications for mental health screening. *Ambulatory Pediatrics, 6*(6), 347–351. https://doi.org/10.1016/j.ambp.2006.09.004

Chavez, A. E., Troxel, M., Sheldrick, R. C., Eisenhower, A., Brunt, S., & Carter, A. S. (2024). Child social-emotional and behavioral problems and competencies contribute to changes in developmental functioning during early intervention. *Early Childhood Research Quarterly, 66*, 245–254. https://doi.org/10.1016/j.ecresq.2023.10.009

Chen, C.-Y., Squires, J., Chen, C.-I., Wu, R., & Xie, H. (2019). The adaptation and psychometric examination of a social-emotional developmental screening tool in Taiwan. *Early Education and Development, 1-20*. https://doi.org/10.1080/10409289.2019.1611126

Chen, I. C., Lee, P. W., Wang, L. J., Chang, C. H., Lin, C. H., & Ko, L. W. (2022). Incremental validity of multi-method and multi-informant evaluations in the clinical diagnosis of preschool ADHD. *Journal of Attention Disorders, 26*(10), 1293–1303. https://doi.org/10.1177/10870547211045739

Cheng, J., & Ding, Y. (2023). Influence of parenting styles on problematic Behaviours of migrant children. *Journal of Education, Humanities and Social Sciences, 22*, 746–752. https://doi.org/10.54097/ehss.v22i.13354

Crane, L., Sumner, E., & Hill, E. L. (2017). Emotional and behavioural problems in children with developmental coordination disorder: Exploring parent and teacher reports. *Research in Developmental Disabilities, 70*, 67–74. https://doi.org/10.1016/j.ridd.2017.08.001

Crnic, K., Hoffman, C., Gaze, C., & Edelbrock, C. (2004). Understanding the emergence of behavior problems in young children with developmental delays. *Infants and Young Children, 17*(3), 223–235. https://doi.org/10.1097/00001163-200407000-00004

Cury, C. R., & Golfeto, J. H. (2003). Strengths and difficulties questionnaire (SDQ): A study of school children in Ribeirão Preto. *Brazilian Journal of Psychiatry, 25*, 139–145. https://doi.org/10.1590/S1516-44462003000300005

Damodaran, D. K., Thayyullathil, R. H., Tom, M., & Sivadas, R. K. (2022). Redefining learning through social-emotional learning: A review. *International Journal of Health Sciences, 6*(S3), 3008–3019. https://doi.org/10.53730/ijhs.v6nS3.6250

Dangi, K., & Joseph, J. (2021). Emotional and behavioural problems among adolescents attending selected schools of Rohtak, Haryana: A cross-sectional study. *Journal of Indian Association for Child and Adolescent Mental Health, 17*(1), 60–71. https://doi.org/10.1177/097313422021010

Datta, P., Ganguly, S., & Roy, B. N. (2018). The prevalence of behavioral disorders among children under parental care and out of parental care: A comparative study in India. *International Journal of Pediatrics and Adolescent Medicine, 5*(4), 145–151. https://doi.org/10.1016/j.ijpam.2018.12.001

Dawson, G., & Osterling, J. (1997). Early intervention in autism. In *The effectiveness of early intervention*. York, Pennsylvania: The Maple Press Co. (pp. 3-7-326).

Dean, R. S., & Steffen, J. E. (1984). Direct and indirect pediatric screening measures. *Journal of Pediatric Psychology, 9*(1), 65–75. https://doi.org/10.1093/jpepsy/9.1.65

Dekker, M. C., Koot, H. M., Ende, J.v.d., & Verhulst, F. C. (2002). Emotional and behavioral problems in children and adolescents with and without intellectual disability. *Journal of Child Psychology and Psychiatry, 43*(8), 1087–1098. https://doi.org/10.1111/1469-7610.00235

Dheeshan, N. D., Venkatesh, R., & Lavanya, R. (2020). Assessment of adolescent behavioral and psychological problems using strength and difficulties questionnaire (SDQ) in select schools of Bengaluru. *RGUHS National Journal of Public Health, 5*(1).

Domitrovich, C. E., Durlak, J. A., Staley, K. C., & Weissberg, R. P. (2017). Social-emotional competence: An essential factor for promoting positive adjustment and reducing risk in school children. *Child Development, 88*(2), 408–416. https://doi.org/10.1111/cdev.12739

Dwyer, S. B., Nicholson, J. M., & Battistutta, D. (2006). Parent and teacher identification of children at risk of developing internalizing or externalizing mental health problems: A comparison of screening methods. *Prevention science: The official journal of the Society for Prevention Research, 7*(4), 343–357. https://doi.org/10.1007/s11121-006-0026-5

Egger, H. L., & Angold, A. (2006). Common emotional and behavioral disorders in preschool children: Presentation, nosology, and epidemiology. *Journal of Child Psychology and Psychiatry, 47*(3–4), 313–337. https://doi.org/10.1111/j.1469-7610.2006.01618.x

Eisenhower, A. S., Baker, B. L., & Blacher, J. (2005). Preschool children with intellectual disability: Syndrome specificity, behaviour problems, and maternal well-being. *Journal of Intellectual Disability Research, 49*(9), 657–671. https://doi.org/10.1111/j.1365-2788.2005.00699.x

Emerson, E. (2005). Use of the strengths and difficulties questionnaire to assess the mental health needs of children and adolescents with intellectual disabilities. *Journal of Intellectual and Developmental Disability, 30*(1), 14–23. https://doi.org/10.1080/13668250500033169

Ertem, I. O., Atay, G., Dogan, D. G., Bayhan, A., Bingoler, B. E., Gok, C. G., & Isikli, S. (2007). Mothers' knowledge of young child development in a developing country. *Child: Care, Health and Development, 33*(6), 728–737. https://doi.org/10.1111/j.1365-2214.2007.00751.x

Fält, E., Wallby, T., Sarkadi, A., Salari, R., & Fabian, H. (2018). Agreement between mothers', fathers', and teachers' ratings of behavioural and emotional problems in 3–5-year-old children. *PLoS One, 13*(11), Article e0206752. https://doi.org/10.1371/journal.pone.0206752

Foley Nicpon, M., Doobay, A. F., & Assouline, S. G. (2010). Parent, teacher, and self-perceptions of psychosocial functioning in intellectually gifted children and adolescents with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 40*(8), 1028–1038. https://doi.org/10.1007/s10803-010-0952-8

Gehlbach, H., & Chuter, C. (2020). Conceptualizing the core of "social emotional learning". ACCESS: Contemporary. *Issues in Education, 40*(1), 24–33. https://doi.org/10.46786/ac20.8910

George, M., Chandak, S., Wasnik, M., Khekade, S., Gahlod, N., & Shukla, H. (2019). Assessment of child's mental health problems using strengths and difficulties questionnaire. *Journal of Oral Research and Review, 11*(1), 7–11. https://doi.org/10.4103/jorr.jorr_2_19

Ghosh, S., & Steinberg, H. (2022). Parents' attitudes and unequal opportunities in early childhood development: Evidence from eastern India. *Journal of Early Childhood Research, 20*(3), 413–430. https://doi.org/10.1177/1476718X221077170

Girard, D., Courchesne, V., Degré-Pelletier, J., Letendre, C., & Soulières, I. (2022). Assessing global developmental delay across instruments in minimally verbal

preschool autistic children: The importance of a multi-method and multi-informant approach. *Autism Research, 15*(1), 103–116. https://doi.org/10.1002/aur.2630
Glascoe, F. (1999). The value of parents' concerns to detect and address developmental and behavioural problems. *Journal of Paediatrics and Child Health, 35*(1), 1–8. https://doi.org/10.1046/j.1440-1754.1999.00342.x
Glascoe, F. P. (1997). Parents' concerns about children's development: Prescreening technique or screening test? *Pediatrics (Evanston), 99*(4), 522–528. https://doi.org/10.1542/peds.99.4.522
Glascoe, F. P. (1998). The value of' parents' evaluations of developmental status' in detecting and addressing children's developmental and behavioral problems. *Diagnostique, 23*(4), 185–203. https://doi.org/10.1177/073724779802300401
Goodman, R. (1997). The strengths and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry, 38*(5), 581–586. https://doi.org/10.1111/j.1469-7610.1997.tb01545.x
Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child and Adolescent Psychiatry, 40*(11), 1337–1345. https://doi.org/10.1097/00004583-200111000-00015
Goodman, R., Ford, T., Corbin, T., & Meltzer, H. (2004). Using the strengths and difficulties questionnaire (SDQ) multi-informant algorithm to screen looked-after children for psychiatric disorders. *European Child & Adolescent Psychiatry, 13*(2). https://doi.org/10.1007/s00787-004-2005-3. ii25-ii31.
Goodman, R., Ford, T., Richards, H., Gatward, R., & Meltzer, H. (2000). The development and well-being assessment: Description and initial validation of an integrated assessment of child and adolescent psychopathology. *The Journal of Child Psychology and Psychiatry and Allied Disciplines, 41*(5), 645–655. https://doi.org/10.1111/j.1469-7610.2000.tb02345.x
Goodnow, J. J., & Lawrence, J. A. (2015). Children and cultural context. In R. M. Lerner (Ed.), *Handbook of child psychology and developmental science: Vol 4 ecological settings and processes* (7th ed., pp. 746–788). Wiley. https://doi.org/10.1177/21582440221091254.
Gupta, B. K., & Roshan, M. (2020). The proficiency and familiarity of English in Indian context. *International Journal of English Language Studies, 2*(3), 25–32. https://doi.org/10.48550/arXiv.2501.00029
Harikrishnan, U., & Sailo, G. L. (2021). Prevalence of emotional and behavioral problems among school-going adolescents: A cross-sectional study. *Indian Journal of Community Medicine, 46*(2), 232–235. https://doi.org/10.4103/ijcm.IJCM_451_20
Hartas, D. (2011). Children's language and behavioural, social and emotional difficulties and prosocial behaviour during the toddler years and at school entry. *British Journal of Special Education, 38*(2), 83–91. https://doi.org/10.1111/j.1467-8578.2011.00507.x
Herring, S., Gray, K., Taffe, J., Tonge, B., Sweeney, D., & Einfeld, S. (2006). Behaviour and emotional problems in toddlers with pervasive developmental disorders and developmental delay: Associations with parental mental health and family functioning. *Journal of Intellectual Disability Research : JIDR, 50*(Pt 12), 874–882. https://doi.org/10.1111/j.1365-2788.2006.00904.x
Hickson, G. B., Altemeier, W. A., & O'Connor, S. (1983). Concerns of mothers seeking care in private pediatric offices: Opportunities for expanding services. *Pediatrics, 72*(5), 619–624. https://doi.org/10.1542/peds.72.5.619
Hughes, C. H., & Ensor, R. A. (2009). How do families help or hinder the emergence of early executive function? *New Directions for Child and Adolescent Development, 2009*(123), 35–50. https://doi.org/10.1002/cd.234
Hundert, J., Morrison, L., Mahoney, W., Mundy, F., & Vernon, M. L. (1997). Parent and teacher assessments of the developmental status of children with severe, mild/moderate, or no developmental disabilities. *Topics in Early Childhood Special Education, 17*(4), 419–434. https://doi.org/10.1177/027112149701700404
Hunt, T. K. A., Slack, K. S., & Berger, L. M. (2017). Adverse childhood experiences and behavioral problems in middle childhood. *Child Abuse & Neglect, 67*, 391–402. https://doi.org/10.1016/j.chiabu.2016.11.005
Iizuka, C., Yamashita, Y., Nagamitsu, S., Yamashita, T., Araki, Y., Ohya, T., & Matsuishi, T. (2010). Comparison of the strengths and difficulties questionnaire (SDQ) scores between children with high-functioning autism spectrum disorder (HFASD) and attention-deficit/hyperactivity disorder (AD/HD). *Brain and Development, 32*(8), 609–612. https://doi.org/10.1016/j.braindev.2009.09.009
Ilić, S. B., Nikolić, S. J., Ilić-Stošović, D. D., & Golubović, Š. S. (2019). *Early identification of children with developmental delay and behavioural problems according to parents concerns in the Republic of Serbia, 190*(16), 2605–2611. https://doi.org/10.1080/03004430.2019.1595610
Jacob, P., Dutta, B. K., Kishore, M. T., Mehta, U. M., & Philip, M. (2021). Association between emotional and behavioral problems and perceived parenting in attention deficit hyperactivity disorder: An exploratory study. *Industrial Psychiatry Journal, 30*(2), 335–340. https://doi.org/10.4103/ipj.ipj_106_21
Jena, P. K. (2020). Impact of pandemic COVID-19 on education in India. *International Journal of Current Research (IJCR), 12*(7), 12582–12586. https://doi.org/10.24941/ijcr.39209.07.2020
Karande, S., Kanchan, S., & Kulkarni, M. (2008). Clinical and psychoeducational profile of children with borderline intellectual functioning. *The Indian Journal of Pediatrics, 75*(8), 795–800. https://doi.org/10.1007/s12098-008-0101-y
Kaur, J., & Sharma, A. (2022). What do I know about social-emotional learning: A comparative analysis between public and private preschool teachers in Punjab. *SAGE Open, 12*(2). https://doi.org/10.1177/21582440221091254
Kersten, P., Czuba, K., McPherson, K., Dudley, M., Elder, H., Tauroa, R., & Vandal, A. (2016). A systematic review of evidence for the psychometric properties of the strengths and difficulties questionnaire. *International Journal of Behavioral Development, 40*(1), 64–75. https://doi.org/10.1177/0165025415570647
Kersten, P., Vandal, A. C., Elder, H., & McPherson, K. M. (2018). Strengths and difficulties questionnaire: Internal validity and reliability for New Zealand preschoolers. *BMJ Open, 8*(4), Article e021551. https://doi.org/10.1136/bmjopen-2018-021551
Klaus, D., & Tipandjan, A. (2015). Son preference in India: Shedding light on the north-south gradient. Comparative. *Population Studies, 40*(1). https://doi.org/10.12765/CPoS-2014-18
Kumar, P., Ranjan, A., Nirala, S. K., Pandey, S., Singh, C., & Agrawal, N. (2016). Assessment of mental health among adolescents studying in government schools of Patna District. *Indian Journal of Community and Family Medicine, 2*, 39–43. https://doi.org/10.4103/2395-2113.251740
Li, L., Fan, J., & Jin, Z. (2019). Comparing multimethod assessment of approaches to learning among preschool children: Direct measure, teacher report, and parent report. *Psychology in the Schools, 56*(8), 1271–1286. https://doi.org/10.1002/pits.22274
Llanes, E., Blacher, J., Stavropoulos, K., & Eisenhower, A. (2020). Parent and teacher reports of comorbid anxiety and ADHD symptoms in children with ASD. *Journal of Autism and Developmental Disorders, 50*(5), 1520–1531. https://doi.org/10.1007/s10803-018-3701-z
Ma, J., Mahat, P., Brøndbo, P. H., Handegård, B. H., Kvernmo, S., & Javo, A. C. (2021). Parent reports of children's emotional and behavioral problems in a low- and middle- income country (LMIC): An epidemiological study of Nepali schoolchildren. *PLOS ONE, 16*(8), Article e0255596. https://doi.org/10.1371/journal.pone.0255596
Marsh, N. V., & Ng, S. H. (2017). Behavioural and emotional functioning of adolescents with mild intellectual disability: Perspectives from home and school. *Journal of Psychology and Education, 12*, 76–84. https://doi.org/10.23923/rpye2017.12.146
Michelson, D., Malik, K., Parikh, R., Weiss, H. A., Doyle, A. M., Bhat, B., & Patel, V. (2020). Effectiveness of a brief lay counsellor-delivered, problem-solving intervention for adolescent mental health problems in urban, low-income schools in India: A randomised controlled trial. *The Lancet Child & Adolescent Health, 4*(8), 571–582. https://doi.org/10.1016/S2352-4642(20)30173-5
Mitra, S., Mishra, S. K., & Abhay, R. K. (2023). Out-of-school girls in India: A study of socioeconomic-spatial disparities. *GeoJournal, 88*(1), 341–357. https://doi.org/10.1007/s10708-022-10579-7
Mullick, M., & Goodman, R. (2001). Questionnaire screening for mental health problems in Bangladeshi children: A preliminary study. *Social Psychiatry and Psychiatric Epidemiology, 36*(2), 94–99. https://doi.org/10.1007/s001270050295
Muzzolon, S. R. B., Cat, M. N. L., Santos, L. H. C., & d.. (2013). Evaluation of the pediatric symptom checklist as a screening tool for the identification of emotional and psychosocial problems. *Revista Paulista de Pediatria, 31*(3), 359–365. https://doi.org/10.1590/S0103-05822013000300013
Nachshen, J. S., & Minnes, P. (2005). Empowerment in parents of school-aged children with and without developmental disabilities. *Journal of Intellectual Disability Research, 49*(12), 889–904. https://doi.org/10.1111/j.1365-2788.2005.00721.x
Nair, S., Ganjiwale, J., Kharod, N., Varma, J., & Nimbalkar, S. M. (2017). Epidemiological survey of mental health in adolescent school children of Gujarat, India. *BMJ Paediatrics Open, 1*(1). https://doi.org/10.1136/bmjpo-2017-000139
Nambiar, D. (2020). The impact of online learning during COVID-19: Students' and teachers' perspective. *The International Journal of Indian Psychology, 8*(2), 783–793. https://doi.org/10.25215/0802.094
Owens, J. S., Storer, J., Holdaway, A. S., Serrano, V. J., Watabe, Y., Himawan, L. K., … Andrews, N. (2015). Screening for social, emotional, and behavioral problems at kindergarten entry: Utility and incremental validity of parent report. *School Psychology Review, 44*(1), 21–40. https://doi.org/10.17105/SPR44-1.21-40
Palfrey, J. S., & Rodman, J. S. (1999). Legislation for the education of children with disabilities: Families and professionals working together. In M. D. Levine, W. B. Carey, & A. C. Crocker (Eds.), *Developmental behavioral pediatrics* (3rd ed.). WB Saunders Co.
Patel, V., Varma, J., Nimbalkar, S., Shah, S., & Phatak, A. (2020). Prevalence and profile of bullying involvement among students of rural schools of Anand, Gujarat. *India. Indian Journal of Psychological Medicine, 42*(3), 268–273. https://doi.org/10.4103/IJPSYM.IJPSYM_172_
Pieters, J., & Klasen, S. (2011). *Drivers of female labour force participation in urban India during India's economic boom. Proceedings of the German development economics conference, Berlin 2011, no. 65, ZBW - deutsche Zentralbibliothek für Wirtschaftswissenschaften, Leibniz-Informationszentrum Wirtschaft, Kiel und Hamburg*.
Qiu, C., & Shum, K. K. M. (2022). Relations between caregivers' emotion regulation strategies, parenting styles, and preschoolers' emotional competence in Chinese parenting and grandparenting. *Early Childhood Research Quarterly, 59*, 121–133. https://doi.org/10.1016/j.ecresq.2021.11.012
Ramakrishna, M., Singh, P., Bambling, M., Edirippulige, S., & Teoh, H. J. (2023). Behavioural concerns in the classrooms in Delhi NCR, India: An explorative study through the lens of parents and teachers. *Current Psychology, 42*(25), 21917–21927. https://doi.org/10.1007/s12144-022-03251-3
Raval, V. V., & Walker, B. L. (2019). Unpacking 'culture': Caregiver socialization of emotion and child functioning in diverse families. *Developmental Review, 51*, 146–174. https://doi.org/10.1016/j.dr.2018.11.001
Rogge, J., Koglin, U., & Petermann, F. (2018). Do they rate in the same way? Testing of measurement invariance across parent and teacher SDQ ratings. *European Journal of Psychological Assessment, 34*(2), 69. https://doi.org/10.1027/1015-5759/a000445
Sarwatay, D., Raman, U., & Ramasubramanian, S. (2021). Media literacy, social connectedness, and digital citizenship in India: Mapping stakeholders on how parents and young people navigate a social world. *Frontiers in Human Dynamics, 3*, Article 601239. https://doi.org/10.3389/fhumd.2021.601239
Schanding, G. T., Nowell, K. P., & Goin-Kochel, R. P. (2012). Utility of the social communication questionnaire-current and social responsiveness scale as teacher-report screening tools for autism spectrum disorders. *Journal of Autism and*

Developmental Disorders, 42(8), 1705–1716. https://doi.org/10.1007/s10803-011-1412-9

Sekaran, V. C., Prabhu, V., Ashok, L., D'Souza, B., Shetty, S. D., & Nair, R. (2024). Predictors of adolescent internalizing and externalizing mental health symptoms: A school-based study in /southern India. *International Journal of Environmental Research and Public Health, 21*(4), 393. https://doi.org/10.3390/ijerph21040393

Shahrivar, Z., Tehrani-Doost, M., Pakbaz, B., Rezaie, A., & Ahmadi, F. (2009). Normative data and psychometric properties of the parent and teacher versions of the strengths and difficulties questionnaire (SDQ) in an Iranian community sample. *Journal of Research in Medical Sciences, 14*(2), 69–77.

Sheel, H., Suárez, L., & Marsh, N. V. (2023). Parents' evaluation of developmental status and strength and difficulties questionnaire as screening measures for children in India: A scoping review. *Pediatric Reports, 15*(1), 175–196. https://doi.org/10.3390/pediatric15010014

Sheel, H., Suarez, L., & Marsh, N. V. (2023). Screening children in India: Translation and psychometric evaluation of the parents' evaluation of developmental status and the strength and difficulties questionnaire. *Pediatric Reports, 15*(4), 750–765. https://doi.org/10.3390/pediatric15040067

Sheel, H., Suárez, L., & Marsh, N. V. (2024). The use of the parents' evaluation of developmental status and developmental milestones in screening children for developmental delay in India. *Children, 11*(12), 1530. https://doi.org/10.3390/children11121530

Shekhawat, R., Sharma, N., & Sodha, V. S. (2019). Prevalence of mental health problems by using strength and difficulty questionnaire in school going adolescents (11-17 years) of Jaipur city, Rajasthan. *International Journal of Community Medicine and Public Health, 6*(5), 2216–2222. https://doi.org/10.18203/2394-6040.ijcmph20191847

Singal, N. (2006). Inclusive education in India: International concept, national interpretation. *International Journal of Disability, Development and Education, 53*(3), 351–369. https://doi.org/10.1080/10349120600847797

Squires, J., Bricker, D., Heo, K., & Twombly, E. (2001). Identification of social-emotional problems in young children using a parent-completed screening measure. *Early Childhood Research Quarterly, 16*(4), 405–419. https://doi.org/10.1016/S0885-2006(01)00115-6

Squires, J., Bricker, D., & Potter, L. (1997). Revision of a parent-completed developmental screening tool: Ages and stages questionnaires. *Journal of Pediatric Psychology, 22*(3), 313–328. https://doi.org/10.1093/jpepsy/22.3.313

Srilatha, A., Doshi, D., Reddy, M. P., Kulkarni, S., & Reddy, B. S. (2016). Self reported behavioral and emotional difficulties in relation to dentition status among school going children of Dilsukhnagar, Hyderabad, India. *Journal of the Indian Society of Pedodontics and Preventive Dentistry, 34*(2), 128–133. https://doi.org/10.4103/0970-4388.180419

Strømme, P., & Diseth, T. H. (2000). Prevalence of psychiatric diagnoses in children with mental retardation: Data from a population-based study. *Developmental Medicine and Child Neurology, 42*(4), 266–270. https://doi.org/10.1017/s0012162200000451

Taneja Johansson, S. (2014). A critical and contextual approach to inclusive education: Perspectives from an Indian context. *International Journal of Inclusive Education, 18*(12), 1219–1236. https://doi.org/10.1080/13603116.2014.885594

Taylor, C. N., Lovelace, R. W., Weaver, C. M., Wright Harry, S., Cato, T. A., & Ackley, M. M. (2023). Addressing barriers to universal screening for social, emotional, and behavioral risk in elementary schools. *Perspectives on Early Childhood Psychology and Education, 7*(1), 8. https://doi.org/10.58948/2834-8257.1037

Thabet, A. A., Stretch, D., & Vostanis, P. (2000). Child mental health problems in Arab children: Application of the strengths and difficulties questionnaire. *International Journal of Social Psychiatry, 46*(4), 266–280. https://doi.org/10.1177/002076400004600404

Tsimpli, I. M., Vogelzang, M., Balasubramanian, A., Marinis, T., Alladi, S., Reddy, A., & Panda, M. (2020). Linguistic diversity, multilingualism, and cognitive skills: A study of disadvantaged children in India. *Languages, 5*(1), 10. https://doi.org/10.3390/languages5010010

van den Heuvel, M., Jansen, D. E. M. C., Reijneveld, S. A., Flapper, B. C. T., & Smits-Engelsman, B. C. M. (2016). Identification of emotional and behavioral problems by teachers in children with developmental coordination disorder in the school community. *Research in Developmental Disabilities, 51-52*(April–May), 40–48. https://doi.org/10.1016/j.ridd.2016.01.008

Van Widenfelt, B. M., Goedhart, A. W., Treffers, P. D., & Goodman, R. (2003). Dutch version of the strengths and difficulties questionnaire (SDQ). *European Child & Adolescent Psychiatry, 12*(6), 281–289. https://doi.org/10.1007/s00787-003-0341-3

Wake, M., Gerner, B., & Gallagher, S. (2005). Does parents' evaluation of developmental status at school entry predict language, achievement, and quality of life 2 years later? *Ambulatory Pediatrics: The Official Journal of the Ambulatory Pediatric Association, 5*(3), 143–149. https://doi.org/10.1367/A04-162R.1

Watson, L. R., Baranek, G. T., Crais, E. R., Steven Reznick, J., Dykstra, J., & Perryman, T. (2007). The first year inventory: Retrospective parent responses to a questionnaire designed to identify one-year-olds at risk for autism. *Journal of Autism and Developmental Disorders, 37*(1), 49–61. https://doi.org/10.1007/s10803-006-0334-4

Watts, R., & Pattnaik, J. (2023). Perspectives of parents and teachers on the impact of the COVID-19 pandemic on children's socio-emotional well-being. *Early Childhood Education Journal, 51*(8), 1541–1552. https://doi.org/10.1007/s10643-022-01405-3