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Parent and Caregiver–Teacher Ratings of Emotional and Behavioral Problems in Japanese Preschoolers with Neurodevelopmental Disorders

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Abstract

Multiple evaluations by both parents and caregivers/teachers are important for assessing emotional and behavioral problems (EBPs) in children with attention-deficit/hyperactivity disorder and autism spectrum disorder. This study examined parent–caregiver/teacher agreement on EBPs among 124 Japanese preschoolers with attention-deficit/hyperactivity disorder and/or autism spectrum disorder using the Child Behavior Checklist for Ages 1½–5 and the Caregiver-Teacher Report Form for Ages 1½–5. In contrast to Western studies, where parents typically report higher severity, our results revealed that Japanese caregivers/teachers rated EBPs as significantly more severe than parents across nearly all scales. The agreement between parent and caregiver/teacher ratings was low across all items (intraclass correlation coefficient < 0.40). For the group with higher cognitive function (intelligence quotient/developmental quotient ≥ 80), there was significantly higher agreement compared with the group with lower cognitive function (intelligence quotient/developmental quotient < 80) ($p < 0.001$), suggesting that cognitive level influences the convergence of informant perspectives. These findings demonstrate that in Japan's group-oriented childcare culture, characteristics of neurodevelopmental disorder may manifest more as functional difficulties in childcare settings than at home. This study highlights the importance of a multi-informant approach and professional support in reducing discrepancies between home and childcare settings, thereby promoting parental self-efficacy and ensuring consistent support across environments.

1. Introduction

1.1 Importance of multi-informant assessment for attention-deficit hyperactivity disorder (ADHD) and autism spectrum disorder (ASD)

Neurodevelopmental disorders, including ADHD and ASD, are characterized by functional brain differences. These conditions often overlap, with severity and prominent symptoms varying by individual (Antshel & Russo, 2019). Prevalence rates are high: ADHD affects approximately 5% of children (Polanczyk et al., 2007; Saito et al., 2020; Sasayama et al., 2022), whereas ASD affects approximately 3.2% (Saito et al., 2020). Estimating the prevalence of ADHD in preschoolers is challenging because hyperactivity and distractibility can fall within the range of "typical" development, though some studies suggest a rate of approximately 3.3% (Yavuz Ozturk et al., 2025).

To accurately assess adaptive behavior, interpersonal relationships, and emotional and behavioral problems (EBPs) in children with ADHD or ASD traits, it is crucial to obtain information not only from parents but also from caregivers and teachers (Achenbach et al., 1987; De Los Reyes et al., 2015; Mash & Hunsley, 2005). Multi-informant data highlights the child's needs across different settings (De Los Reyes et al., 2015) and helps determine targets for intervention at home and in school (Makol et al., 2021). For consistent support, parents and teachers must share a common understanding of the child's

social and emotional needs (Gasparro et al., 2023); thus, understanding the correlations between these different information sources is increasingly being recognized as vital (De Los Reyes et al., 2015; Dickson et al., 2018; Kang et al., 2023; Lerner et al., 2017). However, surveys in Japan suggest challenges remain in how parents and caregivers/teachers share concerns regarding developmental issues (Honda et al., 2024).

1.2 Agreement in general population preschoolers

Parent–caregiver/teacher agreement regarding EBPs is often low (De Los Reyes et al., 2023), particularly in the general population of preschoolers (Berg-Nielsen et al., 2012; Carneiro et al., 2021; Chan et al., 2024; Gross et al., 2004; Liu et al., 2011; Murray et al., 2007; Renk & Phares, 2004). A meta-analysis of 119 studies found an average correlation coefficient of 0.27 (Achenbach et al., 1987). Recent meta-analyses (mostly involving non-clinical samples) reported average correlations of 0.21 for internalizing problems, 0.36 for externalizing problems, and 0.26 for total problems (Carneiro et al., 2021). Conversely, some reports suggest agreement as high as 77% for children without developmental concerns (Barbarin, 2007).

1.3 Agreement in clinical populations

In clinical groups including ADHD and ASD, parent–caregiver/teacher agreement is generally low to moderate, though findings vary (Stevens et al., 2023; Stratis & Lecavalier, 2015). Some studies using the Social Responsiveness Scale for ASD severity found high agreement (r = 0.72) (Constantino et al., 2000), and others suggest agreement is higher in clinical groups than in control groups (Kanne et al., 2009; Schneider et al., 2020). Conversely, others found lower agreement in clinical groups regarding problem behaviors and ADHD symptoms (Korsch & Petermann, 2014; Schneider et al., 2020). Agreement also varies by the type of problem; externalizing problems often show higher agreement than internalizing problems or executive skills (Berg-Nielsen et al., 2012; Kanne et al., 2009; Korsch & Petermann, 2014; Palmer et al., 2023; Pearson et al., 2012; Stratis & Lecavalier, 2015; Szatmari et al., 1994). Most studies indicate that parents report more severe symptoms than teachers (Berg-Nielsen et al., 2012; Chen et al., 2017; Kanne et al., 2009; Llanes et al., 2020; Palmer et al., 2023; Pearson et al., 2012; Schneider et al., 2020; Winsler & Wallace, 2002). Exceptional cases exist, such as a Swedish study where teachers raised concerns earlier than parents (Andersson et al., 2014) and a U.S. study where teachers and parents rated ADHD and symptoms of oppositional defiant disorder equally, but teachers rated internalizing symptoms as more severe (Gadow et al., 2004).

1.4 Assessment using the Child Behavior Checklist for Ages 1½–5 (CBCL 1½–5) and Caregiver-Teacher Report Form for Ages 1½–5 (C-TRF)

The CBCL 1½–5 and C-TRF are internationally recognized tools within the Achenbach System of Empirically Based Assessment (Achenbach, 2015). They are effective for screening preschool mental health and show high predictive validity as a comprehensive criterion measure (McLean et al., 2025). Research across different cultures suggests that caregiver/teacher ratings remain consistent regardless of language variations (Rescorla et al., 2012).

1.5 Assessment of children in Japan

Large-scale Japanese studies using the CBCL 1½–5 and C-TRF in the general population found that parents tend to perceive behaviors as more problematic than caregivers/teachers do (Funahiki et al., 2017). In the general population of Japanese school-aged children (6–12 years), parent–teacher rating correlations were low to moderate (Spearman's rho = 0.16–0.36) (Satake et al., 2003), with parents reporting significantly higher severity, which is consistent with Western findings (Satake et al., 2003).

1.6 Factors influencing discrepancies

Factors contributing to discrepancies include age, gender, intelligence quotient (IQ), autism severity, EBP severity, and parental stress. Findings regarding age, gender, IQ, autism severity, and EBP severity have been inconsistent across studies (Berg-Nielsen et al., 2012; Chan et al., 2024; Charman et al., 2021; De Los Reyes et al., 2009; Levinson et al., 2021; Llanes et al., 2020; Palmer et al., 2023; Salazar et al., 2015; Stratis & Lecavalier, 2015, 2017), whereas higher parental stress has been more consistently associated with lower agreement (Berg-Nielsen et al., 2012; Chan et al., 2024; Moens et al., 2018; Palmer et al., 2023). Contextual differences between home and school settings, as well as differences in how parents and caregivers/teachers interpret children's behaviors, have also been suggested as important contributors (Achenbach, 2011; Achenbach et al., 1987; Rettew et al., 2011; Strickland et al., 2012).

Several studies, predominantly from Europe and North America, have examined parent–caregiver/teacher agreement regarding EBPs in preschool children (Andersson et al., 2014; Berg-Nielsen et al., 2012; Chan et al., 2024; Korsch & Petermann, 2014; Llanes et al., 2020; Mayes et al., 2023; Moens et al., 2018; Murray et al., 2007; Narad et al., 2015; Palmer et al., 2023; Schneider et al., 2020; Stevens et al., 2023; Stratis & Lecavalier, 2015; Szatmari et al., 1994), and a substantial body of evidence has accumulated in community samples (Carneiro et al., 2021; Rescorla et al., 2012). Although similar studies have been conducted in other regions (Bara et al., 2018; Chen et al., 2017), evidence focusing on preschool children with neurodevelopmental disorders remains limited, particularly in Asian populations. This study aims to investigate EBP ratings and the degree of agreement using the Japanese CBCL 1½–5 and C-TRF.

2. Methods

2.1 Study cohort

The participants were preschool children aged ≥ 3 years diagnosed with ADHD or ASD (according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) who visited one of the three specialized medical institutions providing assessment and intervention for children with neurodevelopmental disorders in Nagano Prefecture (Inariyama Medical Welfare Center, National Hospital Organization Higashinagano Hospital, or Nagano Children's Hospital) between April 2024 and September 2025.

The inclusion criteria were: i) preschool children aged ≥ 3 years evaluated using the Japanese CBCL 1½–5 and C-TRF; and ii) attendance at a preschool, kindergarten, or child development support facility for ≥ 3 months.

The exclusion criteria were: i) currently receiving pharmacological treatment for ADHD or ASD; and ii) intellectual disability (developmental quotient [DQ] or full-scale IQ < 50).

2.2 Clinical information

Data extracted from medical records included gender, age, developmental test results (Kyoto Scale of Psychological Development 2020: K-Scale, Wechsler Intelligence Scale for Children: WISC-IV/WISC-V, Tanaka–Binet Intelligence Scale), and CBCL 1½–5/C-TRF scores.

2.3 Assessment of parent and teacher ratings

We compared mean T-scores and examined parent–caregiver/teacher agreement between the CBCL 1½–5 and the C-TRF for the following scales: “Emotional Reactivity,” “Anxious/Depressed,” “Somatic Complaints,” “Withdrawn,” “Attention Problems,” “Aggressive Behavior,” “Internalizing Problems,” “Externalizing Problems,” and “Total Problems.” Comparisons of the agreement were made between groups divided by age (< 60 months vs. ≥ 60 months) and DQ/IQ (< 80 vs. ≥ 80).

2.4 Statistical analysis

T-scores of the CBCL 1½–5 and C-TRF scales were compared using paired t-tests. Agreement was assessed using intraclass correlation coefficients (ICCs) and Pearson’s correlation. ICC values were classified as poor (< 0.40), fair (0.40–0.59), good (0.60–0.74), or excellent (≥ 0.75) (Cicchetti, 1994). ICCs, which assess absolute agreement, were considered suitable for the present study. However, because many previous studies have used Pearson’s correlation coefficients, which reflect consistency in rank order rather than absolute agreement, Pearson correlations were additionally calculated to allow comparison with prior findings. Mean ICCs between the < 60 months vs. ≥ 60 months groups and DQ/IQ < 80 vs. ≥ 80 groups were compared using paired t-tests. Bland–Altman plots were used to visualize score distributions. All analyses were performed using SPSS (version 31; IBM Corporation, Armonk, NY, USA).

3. Results

3.1 Participants’ clinical characteristics

This study included 124 children (91 boys [73.4%], 33 girls [26.6%]). The mean ± standard deviation (SD) age at evaluation was 60.4 ± 11.0 (range: 37–78) months, and the median age was 62 months (interquartile range: 51.0–70.0 months). All children both lived in and attended childcare facilities in Nagano Prefecture. In total, 74 children underwent K-Scale evaluation, and their mean K-Scale total DQ was 79.8 ± 15.9 (range: 56–119). In total, 35 children underwent WISC-IV or WISC-V evaluation, and their

mean full-scale IQ was 88.7 ± 16.1 (range: 66–139). Three children underwent Tanaka–Binet evaluation and showed a mean IQ of 87.0 ± 10.4 (range: 75–94).

3.2 Comparison of parent and teacher ratings

Table 1 represents the mean T-score differences. The difference in mean T-scores was smallest in Somatic Complaints (1.3 ± 12.0 [95% confidence interval (CI), − 0.85, 3.4], $p = 0.24$) and largest in Attention Problems (− 10.21 ± 12.4 [95% CI, − 12.4 to − 8.0], $p < 0.001$). Except for Somatic Complaints, caregiver/teacher scores (C-TRF) were higher than parent scores (CBCL 1½–5) across all scales. This difference was significant for all scales except Somatic Complaints and Aggressive Behavior.

Table 1
Mean CBCL 1½–5 and C-TRF T-score differences (CBCL 1½–5 − C-TRF)

Scale	Mean difference (SD)	95% CI	*p*-value
Emotionally Reactive	−4.77 (12.5)	−6.99 to − 2.55	< 0.001
Anxious/Depressed	−4.379 (10.31)	−6.21 to − 2.55	< 0.001
Somatic Complaints	1.27 (12.0)	−0.85 to 3.40	0.238
Withdrawn	−3.45 (11.0)	−5.41 to − 1.50	< 0.001
Attention Problems	−10.21 (12.44)	−12.42 to − 8.00	< 0.001
Aggressive Behavior	−1.61 (12.2)	−3.78 to 0.55	0.143
Internalizing Problems	−4.91 (11.40)	−6.93 to − 2.89	< 0.001
Externalizing Problems	−4.82 (12.52)	−7.05 to − 2.60	< 0.001
Total Problems	−6.64 (13.10)	−8.97 to − 4.31	< 0.001

CBCL 1½–5, Child Behavior Checklist for Ages 1½–5; C-TRF, Caregiver-Teacher Report Form for Ages 1½–5; CI, confidence interval; SD, standard deviation.

The distribution of the mean CBCL 1½–5 and C-TRF T-scores and the differences between the CBCL 1½–5 and C-TRF T-scores are shown in the Bland–Altman plots (Fig. 1).

3.3 Degree of agreement

The ICCs and Pearson correlation coefficients for the CBCL 1½–5 and C-TRF T-scores are shown in Table 2. ICC values ranged from − 0.12 (95% CI, − 0.29 to 0.06) for Total Problems to 0.23 (95% CI, 0.06 to 0.39) for Aggressive Behavior, indicating poor agreement across all scales (ICCs < 0.40). The Pearson correlation coefficients were also low for all scales ($r < 0.40$).

Table 2
Agreement between Child Behavior Checklist for Ages 1½–5 and Caregiver-Teacher Report Form for Ages 1½–5 T-scores

Emotionally Reactive	**ICC (95% CI)**	**Pearson's *r* (95% CI)**
	0.01 (− 0.17 to 0.18)	**0.07 (− 0.11 to 0.25)**
Anxious/Depressed	0.22 (0.04 to 0.38)	0.29 (0.12 to 0.45)
Somatic Complaints	0.06 (− 0.12 to 0.23)	0.06 (− 0.12 to 0.23)
Withdrawn	0.14 (− 0.03 to 0.31)	0.18 (0.01 to 0.35)
Attention Problems	−0.02 (− 0.20 to 0.16)	0.23 (0.06 to 0.39)
Aggressive Behavior	0.23 (0.06 to 0.39)	0.23 (0.06 to 0.39)
Internalizing Problems	−0.03 (− 0.20 to 0.15)	0.06 (− 0.12 to 0.23)
Externalizing Problems	0.15 (− 0.03 to 0.32)	0.21 (0.04 to 0.38)
Total Problems	−0.12 (− 0.29 to 0.06)	−0.01 (− 0.18 to 0.17)
CI, confidence interval; ICC: intraclass correlation coefficient.		

The ICCs were higher in the ≥ 60 months group than the < 60 months group for all scales excluding Withdrawn, Attention Problems, and Aggressive Behavior (Table 3). The mean ICCs of the two groups were not significantly different (p = 0.43).

Table 3
Agreement between Child Behavior Checklist for Ages 1½–5 and Caregiver-Teacher Report Form for Ages 1½–5 T-scores in the < 60 months and > 60 months groups

Scale	< 60 months ICC (95% CI)	≥ 60 months ICC (95% CI)
	N = 55	N = 69
Emotionally Reactive	−0.05 (− 0.31 to 0.22)	0.06 (− 0.18 to 0.29)
Anxious/Depressed	0.11 (− 0.15 to 0.36)	0.30 (.07 to 0.50)
Somatic Complaints	0.02 (− 0.25 to 0.28)	0.10 (− 0.14 to 0.33)
Withdrawn	0.17 (− 0.09 to 0.42)	0.11 (− 0.12 to 0.34)
Attention Problems	0.06 (− 0.21 to 0.32)	−0.10 (− 0.33 to 0.14)
Aggressive Behavior	0.23 (− 0.30 to 0.47)	0.22 (− 0.11 to 0.44)
Internalizing Problems	−0.08 (− 0.33 to 0.19)	0.03 (− 0.21 to 0.26)
Externalizing Problems	0.15 (− 0.12 to 0.40)	0.15 (− 0.09 to 0.37)
Total Problems	−0.12 (− 0.37 to 0.15)	−0.11 (− 0.34 to 0.13)
CI, confidence interval; ICC: intraclass correlation coefficient.		

The DQ/IQ ≥ 80 group showed significantly higher agreement (i.e., higher ICCs) across all scales compared with the DQ/IQ < 80 group ($p < 0.001$) (Table 4).

Table 4
Agreement between Child Behavior Checklist for Ages 1½–5 and Caregiver-Teacher Report Form for Ages 1½–5 T-scores in the < 60 months and > 60 months groups

Scale	IQ or DQ < 80 ICC (95% CI)	IQ or DQ ≥ 80 ICC (95% CI)
	N = 51	N = 61
Emotionally Reactive	−0.18 (− 0.43 to 0.09)	0.09 (− 0.16 to 0.33)
Anxious/Depressed	0.15 (− 0.13 to 0.41)	0.27 (.02 to 0.48)
Somatic Complaints	0.02 (− 0.25 to 0.30)	0.10 (− 0.16 to 0.34)
Withdrawn	0.14 (− 0.14 to 0.40)	0.23 (− 0.02 to 0.45)
Attention Problems	−0.25 (− 0.49 to 0.02)	0.11 (− 0.14 to 0.35)
Aggressive Behavior	0.01 (− 0.27 to 0.28)	0.38 (.14 to 0.57)
Internalizing Problems	−0.19 (− 0.44 to 0.09)	0.08 (− 0.17 to 0.32)
Externalizing Problems	−0.16 (− 0.42 to 0.12)	0.32 (0.08 to 0.53)
Total Problems	−0.33 (− 0.55 to − 0.06)	0.05 (− 0.20 to 0.29)

CI, confidence interval; DQ, developmental quotient; ICC: intraclass correlation coefficient; IQ, intelligence quotient.

Discussion

In this study of Japanese preschoolers with neurodevelopmental disorders, parent–caregiver/teacher agreement regarding EBPs was generally low across all domains. Moreover, caregivers/teachers rated children's EBPs as more severe than did parents on all scales, with the exception of Somatic Complaints. These findings contrast with previous studies, conducted predominantly in Europe and North America, which have generally reported modest parent–teacher agreement (typically r = 0.20–0.40) and a tendency for parents to assign higher severity ratings than caregivers/teachers (Berg-Nielsen et al., 2012; Chen et al., 2017; Kanne et al., 2009; Llanes et al., 2020; Palmer et al., 2023; Pearson et al., 2012; Rescorla et al., 2012; Schneider et al., 2020; Winsler & Wallace, 2002). By contrast, the correlation coefficients observed in the present study ranged from − 0.008 to 0.213, indicating substantially lower agreement. Moreover, with only a few exceptions (Andersson et al., 2014; Gadow et al., 2004), studies have reported that parents tend to rate their children's EBPs as more severe than do caregivers/teachers, whereas the present study found the opposite pattern, with caregivers/teachers assigning higher severity ratings than parents.

The degree of agreement was low across all scales (ICCs < 0.40). Among the scales, agreement was relatively high for Aggressive Behavior and Anxious/Depressed (ICCs > 0.20), modest for Withdrawn (ICC > 0.10), and lowest for Emotional Reactivity, Somatic Complaints, and Attention Problems (ICCs < 0.10). Previous studies have generally found higher parent–caregiver/teacher agreement for

externalizing than internalizing problems (Berg-Nielsen et al., 2012; Carneiro et al., 2021; Palmer et al., 2023; Pearson et al., 2012; Stratis & Lecavalier, 2015). Although the present findings broadly followed this pattern, the relatively higher agreement observed for Anxious/Depressed suggests that symptom-specific agreement may differ in Japanese preschool children with neurodevelopmental disorders.

This difference is likely related to the particular social demands and cultural norms present in Japanese early childhood education and care (ECEC). Early childhood education in Nordic countries tends to emphasize “children’s well-being and happiness” (Finnish National Agency for Education, 2018), and in the United States emphasis is placed on “self-esteem and individual development” (National Association for the Education of Young Children, 2020). By contrast, Japanese early childhood education places emphasis on “sociality, cooperation, and empathy” (Ministry of Education, Culture, Sports, Science and Technology, 2018; National Institute for Educational Policy Research, 2019). In Japan, ECEC providers place a great emphasis on group cooperation, collective action, and waiting one’s turn. These expectations may require higher levels of adaptive functioning, particularly for children with neurodevelopmental conditions, potentially creating a more stressful environment compared with Western settings. In addition, Japanese childcare settings prioritize social interaction and emotional support but may provide less structured environmental support for specific learning activities compared with Western standards (Fujisawa et al., 2023). Core symptoms such as impulsivity, hyperactivity, and social communication difficulties may become more apparent in highly structured group settings than at home, where parents often provide individualized support and greater flexibility.

The systemic differences in early childhood intervention between Japan and Western nations also provide a framework for understanding these results. Although Japan is currently transitioning toward a “proportionate universalism” approach through the establishment of child and family support centers (Ueda, 2026), traditional Japanese interventions have relied heavily on expert-directed clinical therapy and school-based services. This approach contrasts with Western systems, such as the U.S. Individuals with Disabilities Education Act Part C program, which prioritizes comprehensive, family-centered early support (Zwaigenbaum et al., 2015). In the Western approach, interventions primarily aim to support and coach parents within the child’s natural environment, particularly the home, to enhance parental self-efficacy and behavioral management skills (Zwaigenbaum et al., 2015). By comparison, Japanese interventions are commonly implemented outside the home or through additional staff in educational settings, which may limit parents’ awareness of the challenges their children encounter in group situations (Oi et al., 2017; Tsuge, 2019; Ueda, 2026).

To investigate factors underlying informant discrepancies, we categorized participants by age (< 60 vs. ≥ 60 months) and IQ/DQ (< 80 vs. ≥ 80). Regarding age, the older group (≥ 60 months) showed a trend toward higher agreement in internalized problems, contrasting with Western studies reporting decreasing agreement as children age (Stratis & Lecavalier, 2015). In Japan, during the final year of preschool, increased emphasis is placed on school readiness, particularly on adapting to group norms and expectations. Additionally, as children approach school age, parents may adopt a more objective, “teacher-like” perspective. Regarding cognitive function, our finding that agreement was significantly

higher in the IQ/DQ ≥ 80 group for all scales also diverges from the Western model, which suggests that higher IQ allows children to "mask" symptoms, thereby reducing agreement (Hollocks et al., 2013; Stratis & Lecavalier, 2015). This reversal may reflect the high behavioral expectations commonly observed in Japanese ECEC settings. In this context, even children with higher cognitive abilities may struggle to mask their neurodevelopmental traits, raising awareness among parents and caregivers/teachers of these difficulties. The results indicate that Japanese children often experience the greatest pressure to adapt during the transition to school age, regardless of intellectual functioning.

Cultural parenting practices may also help explain these findings. The Japanese concept of "amae" (emotional dependence) reflects a relative cultural acceptance of dependency and closeness, and Japanese parents often place greater emphasis on their children's emotional well-being and happiness (Doi, 1973; Kobashi & Kobashi, 2017; Umemura & Traphagan, 2015). This tendency may lead to a situation in which behaviors such as inattention and hyperactivity may be interpreted by parents as signs of developmental immaturity (Levenbach, 2004), whereas caregivers/teachers may perceive the same behaviors as being indicative of difficulties in social adaptation within group settings. The only scale on which the parents in our study had higher ratings was Somatic Complaints, which further supports this interpretation: children may be more likely to express physical symptoms of stress or seek comfort from parents within the security of the home environment. Importantly, the Bland–Altman plots provided further insight at the individual level. Although parent–caregiver/teacher agreement was relatively consistent among children with milder EBPs, discrepancies became markedly larger as symptom severity increased. Moreover, in children with more severe symptoms, ratings diverged in both directions, with some cases showing higher parent ratings and others higher caregiver/teacher ratings. These findings suggest that emotional and behavioral difficulties may manifest differently across home and childcare settings, indicating that children's behaviors vary depending on the environment. They may also reflect variability in parents' perspectives and interpretations when evaluating their children's behaviors. These findings underscore the importance of a multi-informant approach that considers both the overall tendency for caregivers/teachers to report greater symptom severity and the individual variability in ratings across children.

The findings of the present study highlight important future directions for early childhood education and intervention in Japan. Rather than simply informing parents about their children's "problems," a collaborative framework should be established in which objective assessment measures, such as the CBCL 1½–5 and C-TRF, function as tools for shared understanding. Difficulties observed in childcare settings should be translated into concrete support strategies that can also be implemented at home and shared with parents through a supportive, partnership-based approach.

Limitations and strengths

Several limitations of this study should be acknowledged. First, information regarding the quality of childcare environments (e.g., daycare centers and kindergartens) and the qualifications or experience of caregivers/teachers was not available. Second, there was variability in the timing of assessments

relative to the initiation of medical interventions. Third, the conditions under which caregiver/teacher ratings (C-TRF) were completed were not standardized; in some cases, parents were able to view the ratings, whereas in others the evaluations were sealed and not accessible, which may have influenced the responses. Fourth, potentially relevant sociodemographic factors, such as parental educational level and household income, were not taken into account. Fifth, the study sample was limited to children from a specific region in Japan (Nagano Prefecture) who were referred to medical institutions, which may limit the generalizability of the findings. Finally, levels of stress among parents and caregivers/teachers were not assessed, despite their potential influence on behavioral ratings. Nevertheless, this study has several important strengths. To our knowledge, it is the first clinical study in Japan to examine parent–caregiver/teacher agreement on EBPs using the internationally validated Japanese versions of the CBCL 1½–5 and C-TRF in a preschool sample of children with confirmed neurodevelopmental disorders. By combining standardized T-scores, ICCs, and Bland–Altman analyses, we comprehensively evaluated cross-informant agreement at both the group and individual levels. These findings provide important culture-specific evidence from Japan and offer a foundation for improving early childhood intervention and parent–caregiver/teacher collaboration in East Asian contexts.

Conclusion

This study demonstrated low parent–caregiver/teacher agreement regarding EBPs in Japanese preschoolers with neurodevelopmental disorders, with caregivers/teachers generally rating symptoms as more severe than parents. This pattern differs from many Western findings and may reflect the group-oriented expectations and cultural characteristics of Japanese ECEC. Collaborative use of objective assessment tools, such as the CBCL and C-TRF, may help promote shared understanding and more effective partnerships between families and caregivers/teachers.

Abbreviations

ADHD
attention-deficit/hyperactivity disorder
ASD
autism spectrum disorder
EBPs
emotional and behavioral problems
CBCL 1½–5
Child Behavior Checklist for Ages 1½–5
CI
confidence interval
C-TRF
Caregiver-Teacher Report Form for Ages 1½–5
DQ
developmental quotient

ICC
intraclass correlation coefficient
IQ
intelligence quotient
ECEC
early childhood education and care

Declarations

Conflict of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Ethics Approval

This retrospective observational clinical study was approved by the Ethics Committee of Shinshu University School of Medicine (Approval No. 6316).

Consent to Participate

The parents or guardians of the participants gave consent to take part in the research.

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Author Contribution

Yuri Sakaguchi: Writing – original draft, Investigation, Formal analysis, Data curation, Conceptualization. Hiromi Seki: Writing – review editing, Supervision. Hideko Nakajima: Writing – review editing, Supervision. Mitsuo Motobayashi: Writing – review editing, Supervision. Yuji Inaba: Writing – review editing, Supervision, Conceptualization. Hideo Honda: Writing – review editing, Supervision, Conceptualization. Tomoki Kosho: Writing – review & editing, Supervision, Investigation, Conceptualization.

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Data Availability

The datasets generated and/or analyzed during the current study are not publicly available due to privacy and ethical restrictions but are available from the corresponding author on reasonable request, subject to approval by the appropriate ethics committee.

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Figures

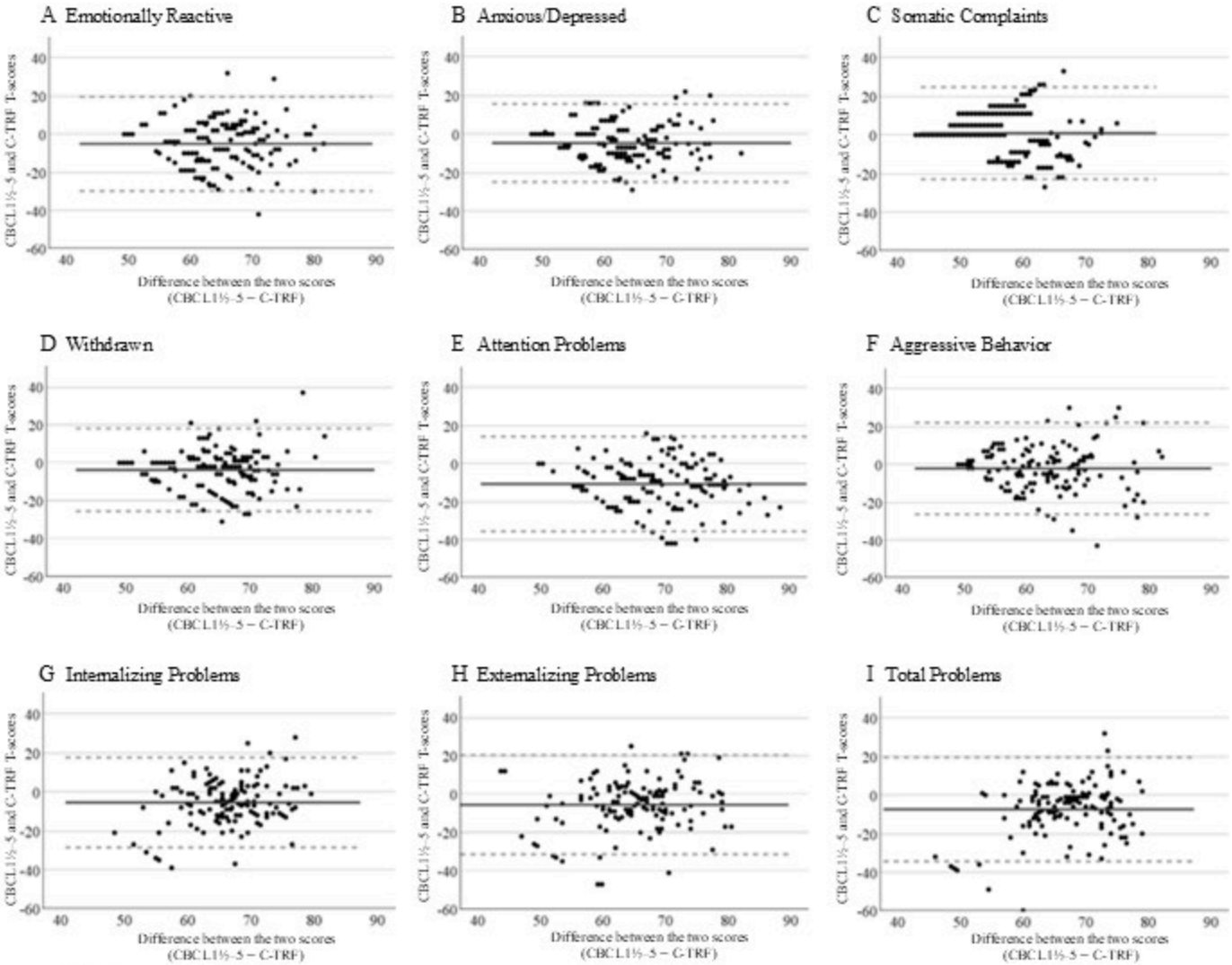

Figure 1.

Figure 1

Bland–Altman plots comparing Child Behavior Checklist for Ages 1½–5 (CBCL 1½–5) and Caregiver-Teacher Report Form (C-TRF) T-scores across scales. The solid line indicates the mean difference, and the dashed lines indicate the 95% limits of agreement.