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Latent profiles of home behaviour problems in Trinidad and Tobago

Clara-Christina E. Gerstner[1], Paul A. McDermott[1], Emily M. Weiss[2], Michael J. Rovine[1], Frank C. Worrell[3], and Tracey E. Hall[4]

[1]Graduate School of Education, University of Pennsylvania, Philadelphia, PA, USA
[2]Graduate School of Education, Rutgers University, New Brunswick, NJ, USA
[3]Graduate School of Education, University of California, Berkeley, CA, USA
[4]Center for Applied Special Technology, Wakefield, USA

Caregivers who interact with children at home can provide a critical, complementary perspective on a child's behaviour functioning. This research used a parent-administered measure of problem behaviours to study perceptions of child behaviours across home situations. We applied latent profile analysis to identify subgroups of children with common behavioural tendencies in a nationally representative sample ($N = 709$) of 4- to 13-year-old children in Trinidad and Tobago. This study (a) identified latent profiles of children's over- and underactive behaviour problems in varied home settings and (b) examined how profile membership predicted academic skills and teacher-observed problem behaviours. The best-fitting four-profile model included one profile of adjusted behaviours (56%), one of the elevated attention-seeking behaviours (21%), a profile featuring withdrawn and disengaged behaviours (15%) and a relatively rare profile emphasising aggressive behaviours (8%). Children classified in the last profile displayed the poorest academic outcomes and the highest levels of teacher-observed behaviour problems.

Keywords: Parent behaviour rating scales; Home environment; Latent profile analysis; Person-centred methods; Trinidad and Tobago.

Child behaviour is situation-specific and varies based on when, where and by whom the behaviour is observed. Behaviour rating scales are used in educational and clinical contexts to identify children who frequently display maladaptive behaviours that could impede their social and cognitive development. Numerous researchers and practitioners have advocated for the use of multi-informant assessments of behaviour problems as they are looking for ways to reduce the prevalence of youth mental health issues in various countries (e.g., De Los Reyes et al., 2013; Rescorla et al., 2014). Although teachers can provide important perspectives on students' behaviours in the classroom, caregivers are much better situated to observe behaviours in community settings and over an extended period of time. Moreover, they can interpret behaviours based on their knowledge of specific situational factors that may impact child behaviour (e.g., significant life events such as a parent losing a job or acquiring an illness).

Thus, caregivers can provide a critical, complementary perspective on a child's behaviour functioning, which researchers and policy-makers should consult in addition to assessments by teachers and school psychologists. To investigate how caregivers perceive behaviour problems at home, we use latent profile analysis (LPA) with a national sample of children in Trinidad and Tobago to identify patterns of behavioural problems in different home situations. In addition, we study the alignment between home behaviour profiles with behaviour problems observed by teachers to assess the consistency of child behaviour ratings across different contexts and informants.

Correspondence should be addressed to Clara-Christina E. Gerstner, Graduate School of Education, University of Pennsylvania, Philadelphia, PA, USA. (E-mail: gerstnercc@outlook.com).

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Contextual factors and informant discrepancies in behaviour rating scales

Behaviour rating scales are a quick and effective way to describe children's behavioural functioning and identify those in need of additional school and home supports (Levinson et al., 2021). Typically, these scales use informant's ratings, such as teachers or caregivers, on various behavioural indicators to identify children at risk of maladjustment. However, a common criticism is the frequent lack of agreement among informants, such as between fathers and mothers or between parents and teachers (Konold et al., 2004; Moens et al., 2018), which may raise concerns about their accuracy. In response, researchers have turned towards contextual theories and argued that observed discrepancies are a meaningful phenomenon and not just noise in the data (Konold et al., 2004).

Contextual theories, such as the bioecological theory of human development (Bronfenbrenner & Morris, 1998), highlight that child development is influenced by the interaction between children's characteristics and their immediate environments. Thus, behaviour is best understood within the context in which it arises and child behaviours often vary across different contexts (Levinson et al., 2021). School and home settings place unique demands and expectations on children, which may elicit different behavioural responses. As the expression of problem behaviours can be highly situational, informant discrepancies may reflect genuine differences in how symptoms present across contexts. Consequently, children identified as at risk in one setting might not be in another. They may be best supported when teachers and caregivers collaborate to transfer skills between contexts to reduce behaviour problems where they occur.

Parent versus teacher ratings of child behaviour

Many popular behaviour rating scales, such as the Child Behaviour Checklist and Strengths and Difficulties Questionnaire, provide both teacher and parent versions of an instrument. Studies applying both forms offer important insights into behavioural variation across contexts, although results can be highly heterogeneous (see Harvey et al., 2013). For example, some research suggests that teachers provide lower ratings of behaviour problems due to their ability to compare behaviours across children and greater knowledge of child developmental functioning (e.g., De Los Reyes et al., 2013), whereas others show that teachers report more problem behaviours than other informants (e.g., Renk, 2005). Parents may overidentify behaviour problems as they lack age-appropriate references and may set unrealistic behavioural expectations for their children (Roopnarine et al., 2015), but they also observe children over longer durations and within more environments. Overall, there is a growing consensus that parent and teacher ratings offer equally valid and important information about child functioning and should be used in conjunction to identify children at risk of behavioural maladjustment (e.g., An et al., 2019; Watkins et al., 2020).

This research utilised the home version of the Adjustment Scales for Children and Adolescents (ASCA-H; Watkins & McDermott, 2002), which was designed to examine the nature and prevalence of behaviour problems in different home settings (e.g., reaction to parent correction, seeking parent help, etc.). The measure was developed by a group of Trinidadian and American researchers for primary school use in Trinidad and Tobago to complement teachers' observations of student behaviour. Previous research with the teacher version of the ASCA has identified six distinct behaviour profiles, with 60% of students displaying no behaviour problems across school settings (Gerstner et al., 2022). The remaining students were classified into one of four risk profiles characterised by elevated underactive and/or overactive behaviour problems in different classroom contexts. This study builds on these findings by identifying children's behaviour profiles based on caregiver ratings and examining how home profiles relate to school behaviour profiles to understand informant discrepancies.

Cultural considerations on home behaviour problems

Parental appraisals of child behaviour should be viewed within the frame of local culture. Researchers have suggested that informant discrepancies in behaviour ratings may reflect differences in behavioural expectations shaped by cultural values and the social and economic conditions of the family environment (Durbrow et al., 2001). Parents assess children's behaviours based on their cultural context, parenting beliefs, child characteristics and their own experiences and upbringing. Parents' perceptions of a child's behaviour may be more strongly influenced by their cultural lens compared to teachers who educate children from various cultural backgrounds. Conversely, teachers' perceptions and behavioural expectations are likely shaped by the school's culture and disciplinary practices in addition to their own background.

The current study took place in Trinidad and Tobago, an English-speaking Caribbean nation that has relatively more economic and social resources arising from its rich natural reserves compared to most other Caribbean countries (Roopnarine et al., 2015). Its multiethnic population comprises families of African and East Indian descent and families with mixed backgrounds. Families' original cultural heritage and traditions influence parenting practices and their expectations for and socialisation of their children's behaviour (Roopnarine et al., 2014). Moreover, poor economic and neighbourhood conditions

still faced by many families may impact their parenting choices and parents' ability to monitor their children's development. Parents' awareness of their ecological environment—such as high levels of insecurity, crime and economic instability—may impact their perception of child behaviours and parenting practices, for instance, leading them to adopt stricter parenting approaches with their children. Yet, research on parental knowledge of child development also shows that Caribbean parents may have age-inappropriate behavioural expectations leading to more punitive parenting practices (Roopnarine et al., 2015). Thus, harsh discipline may represent a mismatch between parental expectations and child competencies rather than a purely protective parenting strategy.

The current study

This research makes use of an ecologically valid measure of problem behaviours to study Caribbean caregivers' perceptions of child behaviours in different home situations. We apply LPA to identify unique subgroups of children with common behavioural tendencies displayed during interactions with caregivers. This study had two main objectives: The first was to identify latent profiles of over- and underactive behaviour problems based on caregivers' observations of child behaviours in different home situations and relate profiles to children's social and academic outcomes. Our second objective was to compare home behaviour profiles with school behaviour profiles obtained from earlier research using the teacher version of the ASCA. We anticipated some level of alignment between home and school behaviour profiles but expected discrepancies to occur due to the different social environments in which teachers and caregivers observe a child's behaviour.

METHOD

Sample and participants

Data are drawn from a study of 4- to 13-year-old children in Trinidad and Tobago attending 79 government and government-assisted elementary schools. Prior to the selection of schools, the nation's schools were stratified by regional enrollment and thereafter randomly selected via a multi-stage sampling strategy to be representative of the primary school population of Trinidad and Tobago. Data was collected by U.S. researchers in collaboration with the Ministry of Education of Trinidad and Tobago. Observations with missing ASCA or ASCA-H scores (the main two instruments used in our analyses) were dropped from the sample. In total, 731 caregivers completed the ASCA-H (Chao, McDermott, Watkins, Rovine, et al., 2018). Out of those, 3% of observations were excluded from our analyses due to missing ASCA scores. Thus, our sample included 709 children.

Respondents to the ASCA-H were caregivers or another person knowledgeable about the child's behaviour; respondents included mothers (68%), fathers (13%), step-parents (1%), aunts (3%), sisters (3%), grandmothers (2%) and others (10%). Twenty-three percent of respondents had attended primary school (Standard 5), 39% attended middle school grades (Form 3) and 23% attended secondary school (Form 6). Participating children were enrolled in grades Infant 1 through Standard 5 (representing the first 7 years of schooling), with a mean child age of 7.9 years ($SD = 2.1$). The sample was 51% female, with 38% African, 38% East Indian and 21% mixed race/ethnicity (see complete demographic information in the Supporting Information).

Measures

Adjustment Scales for Children and Adolescents—Home Edition

The ASCA-H (Watkins & McDermott, 2002) assesses whether a parent or guardian observed specific home behaviour problems (scored present or absent) within a two-month period. The instrument contains 182 descriptions of positive and maladaptive behaviours situated within 28 social, recreational and daily living contexts. Caregivers may endorse multiple behaviour indicators that fit their child within a given context (e.g., child "Refuses to eat," "Starts arguments or fights" or "Appropriately eats the food served" during mealtimes). Positive behaviours are not included in the scoring. Maladjustment is instrumentally defined as the pervasive expression of multiple problem behaviours *within* and *across* situations.

Psychometric analysis of the ASCA-H in the present sample revealed three phenotype scales and two situtype scales—from the Latin for "situation"—corresponding, respectively, to distinct types of maladjustment and situational contexts wherein problem behaviours occur (Chao, McDermott, Watkins, Rovine, et al., 2018; Drogalis et al., 2017). The phenotype scales are (a) Aggression (35 items; $\alpha = .79$; e.g., "Destroys belongings," "Makes threats"), (b) Reticence/Withdrawal (25 items; $\alpha = .72$; e.g., "Too timid to join informal play," "Too shy to greet adults") and (c) Attention-seeking (30 items; $\alpha = .83$; e.g., "Much too talkative," "Greets loudly"). Each item in this scale is embedded in a situational context. The situtype scales include contexts requiring disciplined behaviour (15 situations; $\alpha = .85$, e.g., "Getting ready for school," "Caring for belongings") and contexts requiring engaged behaviours (10 situations; $\alpha = .82$; e.g., "Seeking parent help," "Answering parent questions") and were labelled Indiscipline and Disengagement, respectively. All scales were calibrated using item response theory (IRT) models and scores via Bayesian expected a posteriori (EAP)

estimation (see means and standard deviations in the Supporting Information).

Classroom problem Behaviours

The relationship between children's home behaviour problems and classroom behaviour problems was evaluated with the ASCA (McDermott et al., 2015, 2016), the teacher-rating version of the ASCA-H. The ASCA contains 156 dichotomous indicators describing adaptive and problematic school behaviours embedded in 24 classroom contexts. Ample reliability evidence has been presented for Trinidad and Tobago (George et al., 2012; McDermott et al., 2015). Like the ASCA-H, the instrument features both phenotype and situtype scales, but the specific behavioural indicators and situational contexts are unique to the school setting. The two problem behaviour scales are Overactivity problems ($\alpha = .90$; e.g., "Loses temper") and Underactivity problems ($\alpha = .79$; e.g., "Rarely smiles") and the three situation scales are Problems in Peer Contexts ($\alpha = .85$; e.g., "Playing fairly"), Teacher Contexts ($\alpha = .70$; e.g., "Talking to teacher") and Learning Contexts ($\alpha = .86$; "Paying attention in class").

Classroom learning Behaviours

Positive learning behaviours that may be protective against behaviour maladjustment in school and at home were assessed with the Learning Behaviours Scale (LBS; McDermott, 1999). This study used two subscales: Competence Motivation (eight items, $\alpha = .89$; e.g., "Lively interest in learning activities") and Strategy-Flexibility (eight items, $\alpha = .79$; e.g., "Invents silly ways to do task"). Each behaviour is rated on a 3-point Likert scale by teachers who observe children for at least a 50-day period. Reliability and validity evidence have been presented for the present sample, with scales developed using IRT and Bayesian scoring methods (Chao, McDermott, Watkins, Rhoad-Drogalis, et al., 2018).

Academic achievement

Oral reading fluency (ORF; Fuchs et al., 2001) is an individually administered reading assessment that measures reading speed and accuracy based on two grade-level appropriate text passages. ORF scores represent the average number of words read correctly in 1 minute, with $M = 75.1$ and $SD = 41.7$. The assessment was administered to children ages 5 through 13 in the spring semester (ORF scores were missing for 20% of the total sample). Supportive convergent and predictive validity and clinical utility of ORF measures have been presented and discussed by various researchers (e.g., Shin & McMaster, 2019; Yeo, 2011). In this study, ORF scores were used as a measure of children's academic achievement since nationally standardised achievement measures were unavailable.

Data analyses

Bifactor measurement model

LPA uses indicators that vary meaningfully to identify profiles with interpretable differences in shape and level (Bergman & Magnusson, 1997). Preliminary analyses of the data indicated that a general factor of behavioural adjustment permeated the five ASCA-H subscales and, therefore, no meaningful profile shape differences could be detected. Following Morin et al. (2016), we constructed a bifactor model to disentangle shape from level effects by partialling out the general factor before estimating further latent profile models. In our bifactor model, the general factor represents simple level differences in problem behaviours, whereas the specific factors distinguish the profile shapes. In line with the psychometric evaluation and calibration of the ASCA-H, analyses were conducted on the original items via IRT Full-Information Item Bifactor analysis (Cai et al., 2011) using the *flexMIRT* software.

For the bifactor model, each item loaded simultaneously on the general factor and one of the five group-specific factors corresponding to the five ASCA-H indicators. No cross-loadings were allowed between specific factors. The two-parameter logistic model was estimated for dichotomous items of the ASCA-H phenotypes and the generalised graded response model was estimated for polytomous items of the ASCA-H situtypes. Standardised group and general factor scores were computed via EAP estimation with $M = 0$ and $SD = 1$.

Latent profile model

Factor scores derived from the bifactor model were submitted to LPA. Successively complex models (1- through 5-profiles) were fitted to identify the best and most parsimonious profile solution. To stabilise the model fit, all indicator means were freely estimated and variances were constrained to be equal. In addition, all models included children's age (in years) as an additional covariate and the average age for each profile was reported. The best-fitting solution met the following a priori criteria: (a) minimal values for Schwarz's Bayesian Information Criterion (BIC) and Integrated Classification Likelihood with Bayesian Type Approximation (ICL-BIC), (b) maximal values for entropy and average posterior classification accuracy and (c) statistical significance of the Vuong-LoMendell-Rubin (VLMR), the Lo-Mendell-Rubin adjusted (LMR) and parametric bootstrapped (with 500 draws) likelihood ratio tests (BLRT). LPA models that met the above fit criteria and produced theoretically meaningful profiles retaining membership ≥5% of the full sample were

regarded as preferable. Analyses utilised Mplus 8.8, with full-information maximum-likelihood estimation and 10,000 random starts, 500 iterations each and the 200 best solutions retained for final stage optimization.

School-related outcomes were separately regressed on the latent profile membership variable, with means and standard errors for each profile estimated through the Mplus BCH function, which performs well with continuous distal outcomes (Asparouhov & Muthén, 2014). Chi-square tests were used to compare means of ASCA-H scores for each profile.

Finally, we examined the correspondence between the ASCA-H profiles derived in this paper and the ASCA profiles presented in Gerstner et al. (2022), which used students' behaviour rating scores provided by teachers. The teacher and parent samples did not completely overlap, and we were able to match 566 children's school profiles to their home profiles. To facilitate comparisons, profiles were grouped into three categories—adjusted, underactive and overactive.

RESULTS

Latent profile solution

Table 1 displays fit indices for 1- through 5-profile models. The four-profile solution was chosen based on the significance of the likelihood ratio tests. For solutions with five or more profiles, the VLMR and the LMR likelihood ratio tests did not attain requisite statistical significance. The four-profile model also had adequate entropy and average classification accuracy, lower BIC and ICL-BIC values than less complex models, and retained memberships that did not fall below the 5% criterion. Moreover, the solution was parsimonious, theoretically sound and compatible with prior research.

The final model is displayed in Figure 1 and means and standard errors for the general factor and the ASCA-H indicators are shown in Table 2. Profile means elevated 1 *SD* above the population means signify appreciable behaviour problems and were used to define profiles. Children in Profile 1 showed no elevated behaviour problems and made up the largest subgroup of this sample (56%). Profile 2 featured above-average attention-seeking behaviours and included 21% of children. These children display behaviours such as talking too loudly or being restless at meal times. Children classified in this profile were somewhat younger than children in the adjusted group (see antecedent analyses in the online supplement). The third profile (15% of children) is characterised by elevated levels of reticence/withdrawal situated within contexts that require effortful engagement, such as seeking help from a parent or answering a question. The fourth profile (8%) comprises children who display aggressive behaviours such as disrupting others by fooling around, deliberately destroying others' belongings or making threats.

School-related outcomes

To further inform differences between profiles, means (and standard errors) associated with latent profile membership were computed for eight school-related outcomes (see Table 3). Across outcomes, children in Profile 4 had the lowest scores. They read fewer words and showed less strategic flexibility and motivation when approaching learning tasks as compared to adjusted children. School-related outcomes were not different between children in Profile 1 (adjusted) and Profiles 2 or 3 (attention-seeking and withdrawn-disengaged).

For behaviour problems observed by teachers, children in Profile 4 had the most problems across all ASCA subscales. Their scores were elevated approximately ½ *SD* above the population means for over- and underactivity problems as well as problems in academic, peer and teacher contexts. None of the ASCA classroom-based subscales were substantially elevated for children in Profiles 2 or 3. Further, children in Profile 2 displayed the lowest (most adjusted) scores for underactivity and teacher problems in the sample.

Correspondence between home and school profiles

Table 4 examines the alignment between home profiles from this study and school behaviour profiles based on

TABLE 1
Fit indices for latent profiles of home behaviour problems

					Likelihood ratio tests		
Model	*BIC*	*ICL-BIC*	*Entropy*	*Average PCA*	*VLMR*	*LMR*	*BLRT*
1-Profile	9738.989	9738.989	1.000	1.000	—	—	—
2-Profile	9502.247	9661.474	. 838	.937	<.001	<.001	<.001
3-Profile	9303.272	9569.661	.829	.898	<.001	<.001	<.001
4-Profile	9190.587	9534.596	.825	.874	.001	.001	<.001
5-Profile	9129.571	9508.413	.834	.881	.094	.099	<.001

Note: BIC = Bayesian Information Criterion; ICL-BIC = Integrated Classification Likelihood with Bayesian-Type Approximation; PCA = posterior classification accuracy; VLMR = Vuong-Lo–Mendell Rubin; LMR = Lo-Mendell-Rubin; BLRT = bootstrapped likelihood ratio test.

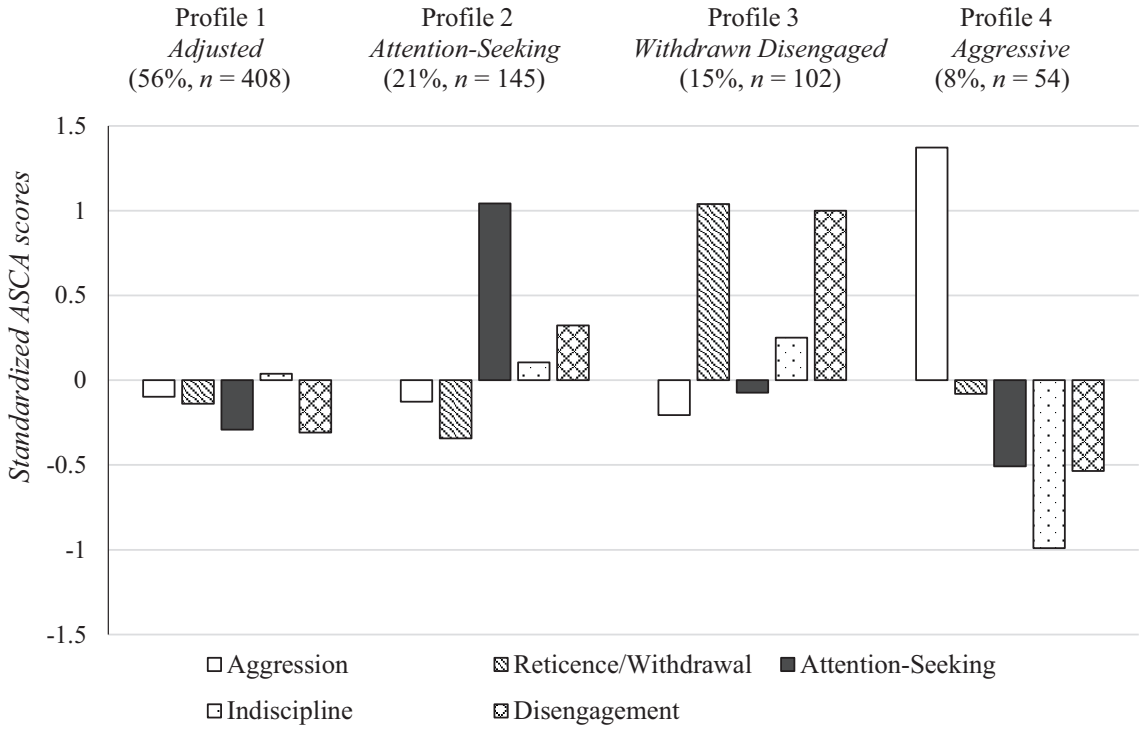

Figure 1. Results from four-profile latent profile model.

TABLE 2
Estimated means (and standard errors) for latent profiles of home behaviour problems

		ASCA-H phenotypes			*ASCA-H situtypes*	
Latent profile	*General*	*Aggression*	*Reticence/withdrawal*	*Attention-Seeking*	*Indiscipline*	*Disengagement*
Profile 1: Adjusted (age = 8.1)	−.224 (.050)	−.097 (.034)	−.140 (.047)	−.298 (.023)	.037 (.035)	−.313 (.042)
Profile 2: Attention-seeking (age = 7.4)	.168 (.082)	−.127 (.064)	−.345 (.049)	**1.030** (.046)	.107 (.076)	.315 (.060)
Profile 3: Withdrawn disengaged (age = 7.7)	.491 (.124)	−.212 (.076)	**1.037** (.076)	−.073 (.084)	.253 (.094)	*.992* (.107)
Profile 4: Aggressive (age = 8.7)	.192 (.139)	**1.376** (.130)	−.073 (.141)	−*.501* (.097)	−*.994* (.180)	−*.519* (.124)

Note: ASCA-H = Adjustment Scales for Children and Adolescents—Home Edition. Values are EAP scored means where $M = 0$ and $SD = 1$. Values 1 standard deviation above or below the mean are in bold. Values half a standard deviation above or below the mean are in italics. [Corrections added on 15 November 2024, after first online publication: Table 2 has been corrected to include the "General" column heading, in this version.]

TABLE 3
School-related outcomes associated with latent profiles home behaviour problems

Outcome		*Profile 1: Adjusted*	*Profile 2: Attention-seeking*	*Profile 3: Withdrawn disengaged*	*Profile 4: Aggressive*	*Comparison*
LBS	Oral reading fluency	74.978 (2.464)	77.446 (4.503)	76.542 (5.367)	67.736 (8.020)	4 < 1, 2, 3
	Strategy-flexibility	50.446 (.546)	51.352 (.794)	51.884 (1.161)	45.154 (1.672)	4 < 1, 2, 3
	Competence motivation	50.991 (.545)	52.896 (.788)	50.650 (1.062)	43.479 (1.550)	4 < 1, 2, 3
ASCA	Overactivity	50.807 (.520)	50.174 (.823)	49.581 (.919)	55.959 (1.486)	4 < 1, 2, 3
	Underactivity	50.209 (.401)	48.000 (.572)	51.757 (.965)	53.907 (1.177)	2 < 1, 3, 4 4 > 1, 3
	Academic context	49.227 (.540)	47.747 (.901)	49.790 (1.125)	54.425 (1.566)	4 > 1, 2, 3
	Peer context	49.233 (.524)	48.878 (.908)	48.992 (1.058)	55.651 (1.598)	4 > 1, 2, 3
	Teacher context	49.602 (.533)	47.622 (.879)	51.042 (1.234)	53.795 (1.754)	2 < 1, 3, 4 4 > 1, 3

Note: LBS = Learning Behaviour Scale; ASCA = Adjustment Scales for Children and Adolescents. Profile means and standard errors (in parentheses) are obtained through the Mplus BCH function. Differences are significantly different at $p < .05$.

TABLE 4
Correspondence between ASCA and ASCA-H profiles ($N = 566$)

			ASCA-H profiles, n *(%)*		
			Adjusted (56%)	*Underactive (15%)*	*Overactive (29%)*
				Withdrawn disengaged	*Attention-seeking Aggressive*
ASCA profiles	Adjusted (61%)	Well adjusted Adequately adjusted	193 (34)	73 (13)	56 (10)
	Underactive (20%)	Underactive in teacher contexts Underactive in teacher and learning contexts	48 (8)	22 (4)	10 (2)
	Overactive (19%)	Overactive in peer and learning contexts Overall risk	102 (18)	23 (4)	39 (7)

Note: Agreement between parent and teacher profiles = 45%. [Corrections added on 15 November 2024, after first publication: The position of the "Adjusted (56%)" column heading has been corrected, in this version.]

teacher observations. Overall, caregivers identified more children in overactive profiles (29%) compared to teachers (19%), while teachers identified a higher percentage of children in underactive profiles (20%) compared to caregivers (15%). In terms of informant agreement, 45% of children were categorised into the same profile category (adjusted, underactive, or overactive) by both parents and teachers. Specifically, 34% of children were seen as adjusted in both settings, while approximately 60% were considered adjusted in either context. The results also indicate that most children do not exhibit substantial behaviour problems at both home and school (only 17%), although a large proportion of children (49%) was considered maladjusted in one of the environments. Lastly, only 11% of children were classified in the same risk profile by both informants.

DISCUSSION

Consistent with other multi-informant research, we propose that caregivers' observations of child behaviour offer unique, complementary information to study children's behavioural functioning. Using behaviour ratings by caregivers in Trinidad and Tobago, we identified four subgroups of children, with approximately 60% of children displaying adjusted or healthy behaviours and the remaining children being classified into one of three profiles with elevated problem behaviours. The most common behaviour problems observed by caregivers were attention-seeking behaviours, such as being restless and overly talkative. Underactive behaviours such as timidity and social withdrawal were exhibited by 15% of children; these behaviours were most common in situations that require children to engage with their caregivers, for instance, seeking help or answering a question. The most vulnerable subgroup of primary school children showed elevated levels of aggressive behaviours with concomitant deficits in reading fluency, problem-solving skills and limited motivation. These behaviour problems were also observed by teachers, such that children in Profile 4 had more overactive classroom behaviour problems, academic difficulties and problems interacting with peers compared to their classmates.

Next, we compared our current findings with those from earlier research using the teacher version of the ASCA (Gerstner et al., 2022). This study identified six profiles of teacher-rated child behaviour problems, with also approximately 60% of children displaying adjusted behaviours in school. The prevalence rates of behaviour problems at school and at home were similar (about 40%), suggesting that caregivers and teachers make similar observations concerning the overall frequency of maladjusted behaviours. Thus, parents may not generally overidentify maladjusted behaviours as suggested by other researchers (De Los Reyes et al., 2013; Roopnarine et al., 2015). However, caregivers identified more children in overactive profiles, whereas teachers identified more children in underactive profiles. Contrary to some studies that suggest mothers are more prone to identifying children's underactive behaviours (e.g., Loeber et al., 1990), for this sample, teachers identified more children with such problems, predominantly in learning contexts. Previous research on Trinidadian teachers also found them to be more attuned to underactive behaviours (Watkins et al., 2020); this may be because teachers are more attentive to socially withdrawn behaviours, which can hinder a child's engagement in academic tasks.

On the other hand, caregivers in our study identified more overactive behaviour problems, such as attention-seeking, which may be attributed to their heightened sensitivity to overt, disruptive behaviours that could be perceived as culturally inappropriate and reflect poorly on their parenting. Additionally, Caribbean parents have been found to place a stronger emphasis on obedience and compliance at home (e.g., Wilson et al., 2003), which may serve as a protective factor in less secure social environments. Thus, the observed differences in the number of children classified as overactive or underactive may reflect the distinct roles teachers and parents play in children's lives—teachers focusing on academic skills and parents on teaching culturally-appropriate social behaviours.

We found limited agreement between parents and teachers regarding students' behaviour profiles, with only 11% of children being classified in the same risk profile (underactive vs. overactive). These informant discrepancies may arise from the distinct social environments in which parents and teachers observe a child's behaviour. At the same time, these discrepancies may also reflect differences in how informants perceive or interpret a child's behaviour. Children may be more likely to be perceived as attention-seeking and aggressive if caregivers hold unrealistic behavioural expectations for their age (e.g., being neat and tidy during preschool years) and do not possess the skills to respond effectively to negative behaviours.

While caregivers' perceptions of child behaviour may be "biased" (i.e., influenced by their expectations and parenting skills), these views can significantly affect the home environment and parent–child interactions. Understanding these perspectives is essential for assisting parents in addressing behavioural issues more effectively. For instance, if parents view their children as excessively attention-seeking or aggressive, effective training programmes can offer positive parenting strategies, such as giving constructive feedback and providing information on age-appropriate behavioural expectations (e.g., Weber et al., 2019). Moreover, we found that many children identified as at risk in the home setting were not at risk in the school setting, and vice versa (49% of our sample). Collaborative school-home programmes could facilitate more coordination between parents and teachers and support children in transferring crucial skills (e.g., self-regulation or self-awareness) from one setting to another (Villodas et al., 2014). Finally, a smaller group of children, about 17% of our sample, were identified as at risk by both caregivers and teachers; these children need the most support because their issues affect multiple environments and can have the greatest impact on their social and academic development.

Limitations

Although this study makes meaningful contributions, some limitations should be noted. School-related outcomes were assessed at the same time point as behaviour ratings. Accordingly, we do not suggest that the relations between behaviour problems and school-related outcomes are causal. Future research would be needed to identify whether behavioural difficulties at home or at school lead to academic problems or if they share common underlying causes that give rise to their statistical association. Similarly, longitudinal data collection could indicate whether behaviour profiles are relatively stable across time or whether profiles of behaviour problems are better characterised by growth or decline. Finally, the academic and school-related outcome measures were somewhat limited. Future research including other academic skills (e.g., mathematics ability) would contribute to the knowledge base about how patterns of home behaviour are associated with academic performance.

Conclusion

Our findings underscore the importance of considering multiple perspectives—both caregivers' and teachers'—when assessing children's behavioural difficulties and implementing support systems at school and home. It can be challenging to ascertain which informant's perspective is more accurate (Konold et al., 2004; Moens et al., 2018), as both caregivers and teachers offer insights shaped by the specific environments in which they observe a child's behaviour. Thus, synthesising information from different informants is crucial for developing a more comprehensive approach to understanding and supporting children's behavioural needs.

Additionally, researchers and practitioners should explore strategies to enhance the accuracy of behaviour ratings, aiming to distinguish between response biases and contextual factors that contribute to discrepancies among informants. For example, caregivers and teachers could be provided additional information on child development and age-appropriate social skills before administering an assessment device to reduce biases. Further, assessments—like the one used in this study—that provide descriptive items, rather than requiring informants to make judgements about children's unobservable psychological processes (i.e., feelings, thoughts; LeBoeuf et al., 2010) should be favoured. Finally, behaviour ratings from trained, outside observers could supplement ratings from caregivers and teachers and provide a complimentary, external perspective. Although these strategies may increase the cost of assessment processes, they would likely increase the accuracy of behaviour ratings and avoid providing unnecessary interventions for children who already have the skills and abilities to succeed in school and beyond and instead focus on children who require assistance the most.

COMPLIANCE WITH ETHICAL STANDARDS

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee at Penn State University and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual adult participants included in the study.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Table S1. Descriptive statistics demographic characteristics.

Table S2. Means and standard deviations for scales.

Table S3. Odds ratios and risk increment/reduction for explanatory covariates.

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