



# Reporting on behaviors of children and adolescents diagnosed with Autistic Disorder: Different points of view



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## ABSTRACT

This study investigated the relationship between data obtained from multiple informants on children's and adolescent's behavior to inform clinicians on collecting behavioral data in applied settings. Comparisons were made between behavior in the home as observed by the primary caregiver and in the school environment as observed by a teacher or mental health professional. Caregiver's and teacher's ratings of student's adaptive behavior were significantly correlated, while caregiver's and mental health professional's ratings of student's problem behavior were not significantly related. There was a significant difference between overall mean scores on subscales of adaptive behavior. Specifically, caregivers rated their child's skills higher than teachers. There were no differences on overall mean scores on problem behavior. Significant differences in scores can be explained by informants contributing valid information from two different environments and the fact that children with autism do not typically generalize skills and behaviors across environments. Results from this study can inform future clinical work as to how to assess a child's behavior in a specific situation in the most effective and efficient way possible.

## INTRODUCTION

**Background & Significance.** The increasing prevalence of autism in youth indicates an increasing need for efficient and accurate assessments of children and adolescents with a potential diagnosis of autism (Autism and Developmental Disabilities Monitoring Network 2006 Principal Investigators, 2009). A seminal question is how to best maximize construct validity and minimize measurement error. Using a single measure does not allow one to estimate measurement error in analyses, nor does it allow a researcher to parse apart random error from method variance (Campbell & Fiske, 1959). Unfortunately, often it is not feasible to employ research designs with multiple measures obtained with multiple methods. Therefore, knowing what methodology will result in the most accurate estimate of an individual's behavior is prudent to be able to predict the best way to estimate behavior given limited time and resources.

This question is particularly salient in research on children's and adolescent's behavioral and emotional issues within the autism spectrum given that these individuals have reduced insight into their own behaviors and emotions, and like all individuals, they exist in a variety of contexts where their behaviors and emotions may change depending on the situation (Achenbach, McConaughy, & Howell, 1987). To the authors' knowledge, an inadequate amount of research has been conducted on discrepancies in the report of behavior by multiple informants in a population of children and adolescents diagnosed with autism (Posserud, Lundervold, & Gillberg, 2006).

**Present Study.** This study investigated the relationship between data obtained from different informants on children's behavior. Comparisons were made between data collected on a child's behavior in the home environment as observed by a child's primary caregiver and the school environment as observed by a child's teacher or a mental health professional.

## HYPOTHESES

- Caregiver's and teacher's report of adaptive skills will be significantly and positively correlated.
- Caregiver's and a mental health professional's (behavior consultant's) report of child behavior will be significantly and positively correlated.

## METHOD

### Participants.

Data was collected from 49 students (41 males; 7 females) at The Vista School. The Vista School is a day school which provides education and therapeutic programs for children diagnosed with an Autism Spectrum Disorder. See Table 1 for other descriptive statistics.

**Table 1. Descriptive Statistics**

	<i>M (SD) or %</i>
Child age	8.44 (3.44)
Child gender: male/female	86/14
Child ethnicity: non-minority/minority	92/8
Child IQ	63.03 (28.24)
Child grade	2.95 (1.87)
Attendance (days)	192 (9.77)
Caregiver's age	41.29 (5.96)
Caregiver's marital status <sup>1</sup>	88/12
Caregiver's highest year of school	13.73 (1.07)
Caregiver's current status of employment <sup>2</sup>	96/4
Family income	\$50,699.93 (\$17,438.26)

<sup>1</sup> Dual/Single; <sup>2</sup> Employed/Unemployed

### Procedure.

Caregivers of students complete several questionnaires administered yearly which measure adaptive skills and child behavior. Teachers of students completed the teacher version of the adaptive skill measure, while behavioral consultants complete the mental health professional version of the child behavior questionnaire.

### Measures.

• **Vineland Adaptive Behavior Scales, Second Edition (Vineland – II; Sparrow, Cicchetti, & Balla, 2005).** The Vineland – II measures personal and social skills needed for everyday living. Three domains assessed by this measure were included in the present analyses: Communication, Daily Living Skills, and Socialization.

• **The Maladaptive Behavior Index of the Scales of Independent Behavior – Revised (SIB-R; Bruininks, Woodcock, Weatherman, & Hill, 1996).** The Scales of Independent Behavior – Revised (SIB-R) is a comprehensive, norm-references assessment of adaptive and maladaptive behavior. Only the Maladaptive Behavior Index was used in this study to assess Internalizing behaviors, Externalizing behaviors, and Asocial behaviors.

## RESULTS

Hypotheses were tested using correlations and *t*-tests to determine associations and mean differences between informants of the same child regarding the same targeted behaviors and skills.

**Hypothesis 1: Association between caregiver's and teacher's report on adaptive skills.** There are significant positive associations between caregiver and teacher report of student's individual scores on each Vineland subscale. Scores on the Adaptive Behavior, Communication, and Daily Living scales were associated with younger age and higher IQ. Caregiver report of scores on the Adaptive Behavior subscale was associated with being female and higher scores on the Socialization subscale was associated with younger age and being female. There is a significant difference between overall mean scores as reported by caregivers and teachers on the Adaptive Behavior and Daily Living scales of the Vineland. Caregivers rated their child's Adaptive Behavior and Daily Living skills higher than teachers. See Table 2.

**Table 2. Hypothesis 1**

	Teacher and Caregiver	Age	Gender	IQ	Caregiver's Mean Score	Teacher's Mean Score	<i>t</i>
Adaptive Behavior	.72**	-.59**	.28*	.55**	57.66	51.17	3.85**
Daily Living	.64**	-.34**	.33*	.48**	57.25	55.79	.21
Communication	.85**	-.47**	<i>ns</i>	.55**	58.54	53.18	2.77*
Socialization	.40*	-.65**	.34*	<i>ns</i>	57.71	55.07	.27

\*  $p < .05$ , \*\*  $p < .01$ , *ns* – not significant

**Hypothesis 2: Association between caregiver's and behavioral consultant's report on child behavior.** There are no significant associations between caregiver and BC report of student's individual scores on each SIB-R subscale. Several demographic variables were associated only with behavioral consultant report of child behavior. Higher scores on the Internalizing subscale were associated with older age and lower IQ; higher scores on the Externalizing subscale were associated with a lower SES Index; and higher scores on the Asocial subscale were associated with being male, having a higher IQ, and having a lower SES Index. There were no significant differences between overall mean scores as reported by caregivers and behavioral consultant on child behavior. See Table 3.

**Table 3. Hypothesis 2**

	BC and Caregiver	Age	Gender	IQ	SES	Caregiver's Mean Score	Teacher's Mean Score	<i>t</i>
Overall	.14	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	-28.67	-30.21	1.09
Internalizing	.09	-.40**	<i>ns</i>	.31*	<i>ns</i>	-21.92	-21.64	-.09
Externalizing	.31	<i>ns</i>	<i>ns</i>	<i>ns</i>	.38*	-25.07	-26.83	.46
Asocial	.03	<i>ns</i>	-.34**	-.44**	.45**	-13.90	-15.65	-.41

\*  $p < .05$ , \*\*  $p < .01$ , *ns* – not significant

## DISCUSSION

**Conclusions.** The purpose of this study was to investigate the relationship between multiple informants of children diagnosed with ASD's behavior. The first finding was that caregiver's and teacher's ratings of student's adaptive behavior were significantly correlated. There was a significant difference between the informant's overall mean scores on subscales of adaptive behavior. Caregivers rated their child's Adaptive Behavior and Daily Living skills higher than teachers. The second finding was that caregiver's and mental health professional's ratings of student's problem behavior were not significantly related. There were no differences on overall mean scores on problem behavior.

The school environment is systematic and structured. The home environment is typically much less structured with less individualized support and instruction. Because the SIB-R is completed in two completely diverse environments, it is our belief that the lack of correlation stems from the different informants (parent vs. behavior consultant) contributing valid information specific to their environment. This theory is supported in research by both Achenbach, McConaughy, & Howell (1987) and Posserud, Lundervold, & Gillberg (2006). Children with ASD do not typically generalize skills/behaviors across environments (Stokes & Baer, 1977). Consequently, behaviors observed in one environment may not be the same as those observed in another, as is the case of the parent vs. behavior consultant ratings on the SIB-R.

**Limitations.** There are a number of limitations to this study. First, all data were measured by self-report. Future studies should incorporate observational data. The sample was somewhat restricted in diagnosis (i.e., Autistic Disorder), ethnicity, and gender. Future research should establish whether these findings can be generalized to families with children with other ASDs, as well as more variable ethnic backgrounds and genders. Also, the sample was a clinical sample, and therefore may not be found with a community sample. Finally, several additional factors were not taken into account which could explain additional model variance.

**Implications.** Despite these limitations, the present study expands existing knowledge of the relationship between different informants on a specific behavior in an individual child or adolescent. More importantly, results inform future clinical work as to how to assess a child's behavior in a specific situation in the most effective and efficient way possible.

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