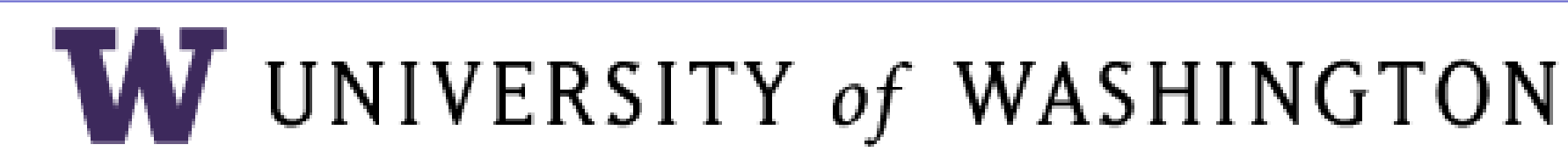


Parental Attributions of Behavior in Toddlers with ASD-Related Concerns

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Abstract

Parents' attributions of their children's behavior have important implications for parent-child interactions and expectations. Little is known about the behavioral attributions of parents with toddlers who have ASD or for whom there are concerns about ASD. The current study compares parents' attributions about their toddler's behavior across three groups: parents with developmental concerns, ASD concerns, or no concerns about their toddler. Parents described scenarios in which their child exhibited good behavior and misbehavior, and rated the degree to which they view these behaviors as internal, stable, and controllable. Two raters coded the parents' descriptions of their child's good behavior and misbehavior by specific categories, which were then grouped into two overarching themes: "Social" and "Compliance." Results revealed no group differences in the type of behavioral examples provided in their descriptions of their child's behavior. However, parents with ASD concerns rated their child's behavior across both scenarios as less controllable and rated their child's misbehavior as more stable when compared to the other two groups.

Background

- Parental attributions, which refer to parents' reasoning about the meaning or cause of their child's behavior, have important implications for parent-child interactions, as attributions have been found to mediate the relation between children's behaviors and how parents react to them (Dix, Ruble, Grusec, & Nixon, 1986).
- Previous work exploring parents' behavioral attributions focuses on 3 dimensions: locus (i.e., internal—external; characteristic of the child or characteristic of the situation), stability (i.e., stable—unstable; a permanent characteristic that will exist in the future or a temporary characteristic that will pass with time), and controllability (i.e., controllable—uncontrollable; under the child's control or out of the child's control; Weiner, 1985).
- With typically developing children, parents generally display a "positivity effect" in which they attribute good behaviors as internal, stable, and controllable, while misbehaviors are perceived as external, temporary, and uncontrollable (Morrissey-Kane & Prinz, 1999).
- Studies examining parental attributions in children diagnosed with autism spectrum disorder (ASD) are limited and inconclusive; they examine broad age ranges, do not include control groups, and have mixed findings. For example, one study found that parents of individuals with ASD perceived misbehavior as more internally caused than good behavior, but perceived good behavior as more controllable than misbehavior, and perceived good behavior and misbehavior as equally stable over time (Whittingham et al., 2008), while another found that parents perceived their child's misbehavior as more stable and controllable, but not internally caused, than good behavior (Hartley, Schaidle, & Burnson, 2013).
- Parents of children with ASD may make different attributions for their child's behavior because they are reporting/referencing behavioral examples that are qualitatively different from the examples recalled by other parents. For example, parents of children with ASD may select behavioral examples that are unique to the core characteristics of ASD (e.g., atypical social interactions), which could hinder comparisons across groups.

- Comparing parental attributions across young children with different presenting concerns may shed light on parents' early behavioral descriptions, as well as their attributional patterns.

Research Aims

To compare parental attributions about their toddler's behavior across three groups: parents with developmental concerns, ASD-related concerns, or no concerns, to understand potential differences in:

- The behavioral examples they provide when describing their toddler's good behavior and misbehavior; and
- Their attributions for their toddler's good behavior and misbehavior.

Method

Sample

The sample comprises 153 parent/toddler dyads recruited from primary care practices and early intervention programs as part of a longitudinal community-based study of health care delivery. Three groups of parents were included: those with ASD-related concerns (e.g., explicit ASD concerns or social development concerns), those with other developmental concerns (e.g., language or motor development concerns), or those with no concerns (see Table 1). Child's age differed significantly between the groups such that the mean child's age in the ASD Concerns group is higher than the Developmental Concerns group, $p < .01$; there were no other significant group differences on key demographics, $p \geq .23$.

Table 1: Participant Characteristics

	No ASD Concerns n = 64	Developmental Concerns n = 40	ASD Concerns n = 49	Total Sample n = 153
Mean (SD) child age (months)	19.98(1.02)	21.93 (4.71)	26.33 (5.82)	22.52(4.93)
Mean (SD) caregiver age (years)	31.33 (4.59)	33.75 (5.71)	32.73 (7.64)	32.41 (6.04)
Child sex (% male)	37.50	62.50	65.31	52.94
Child race (% White)	89.06	85.00	83.67	86.27
Child ethnicity (% Hispanic/Latino)	10.93	7.50	14.29	11.11
Parent gender (% female)	95.31	97.50	97.96	96.73
Parent education level (% with at least 4-year degree)	59.38	50.00	26.53	46.41

Procedure

Parent's descriptions and attributions of their toddler's behavior were collected via the Parental Attributions Questionnaire (Whittingham, 2008), which asks parents to: (1) describe two scenarios: one in which their child exhibited "good" behavior and another in which the child exhibited "misbehavior"; and (2) provide ratings about the child's behaviors on 3 attributional dimensions – locus, stability, and controllability.

Parents' Behavioral Descriptions: First, two raters conducted a qualitative review of the data, separately for each scenario type, to identify the most common behavioral categories cited by parents; 4 categories emerged for the "good" scenario and 5 categories emerged for the "misbehavior" scenario (see Table 2). Next, two raters independently coded for the presence of each of these behavioral categories (i.e., 0 vs. 1) in the parents' behavioral descriptions for the "good behavior" and "misbehavior" scenarios. Cohen's kappa revealed moderate to high interobserver agreement for the 9 categories (range = .53-.95). For theoretical and analytical purposes, the categories were then classified into two overarching behavioral themes: socially-oriented behaviors ("Social") and compliance-related behaviors ("Compliance") for each scenario type. For each scenario type, the average number of behavioral categories present/endorsed by parents was calculated by behavioral theme; therefore, 4 mean scores (i.e., Good-Social, Good-Compliance, Misbehavior-Social, and Misbehavior-Compliance) were examined.

Parents' Attributions: For each scenario, parents also rated their child's behaviors on locus, stability, and controllability across 6 items (2 items per dimension) using a 5-point Likert scale; higher ratings reflect *higher* internal causality, stability, and controllability). Mean scores (i.e., 1-5 rating across 2 items) were calculated for each dimension and separately by scenario type.

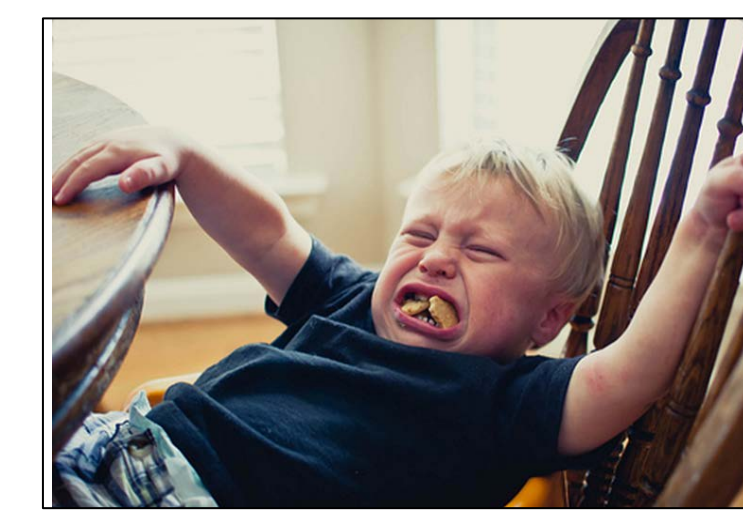
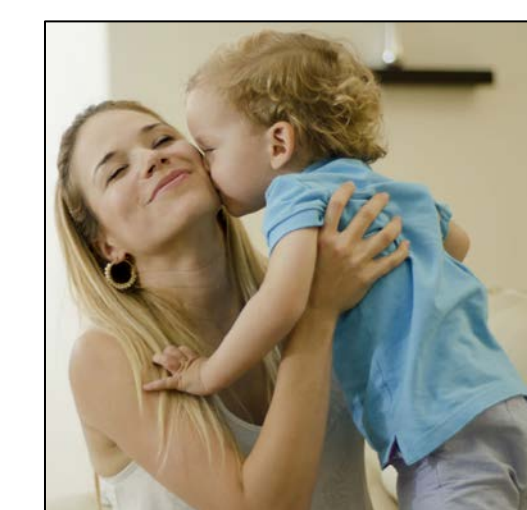


Table 2: Examples of behaviors coded for each type of scenario and theme

Scenario	Behavioral Themes	
	Social	Compliance
"Good Behavior"	<p><u>Showing affection</u> "hugs," "kisses"</p> <p><u>Positive interactions</u> Sharing, helping Using manners, "please," "thank you"</p>	<p><u>Following a direct prompt</u> "she followed directions"</p> <p><u>Following an established norm</u> Helping to clean up toys without being asked</p>
"Misbehavior"	<p><u>Being aggressive</u> "hitting," "biting"</p> <p><u>Poor interactions</u> Refusing to share or help Acting out when not receiving a desired object</p>	<p><u>Not following a direct prompt</u> "even though we told her not to"</p> <p><u>Breaking an established norm</u> Running out into the street even though the child knows not to</p> <p><u>Poor self-conduct</u> Throwing a fit or making a mess</p>

Results

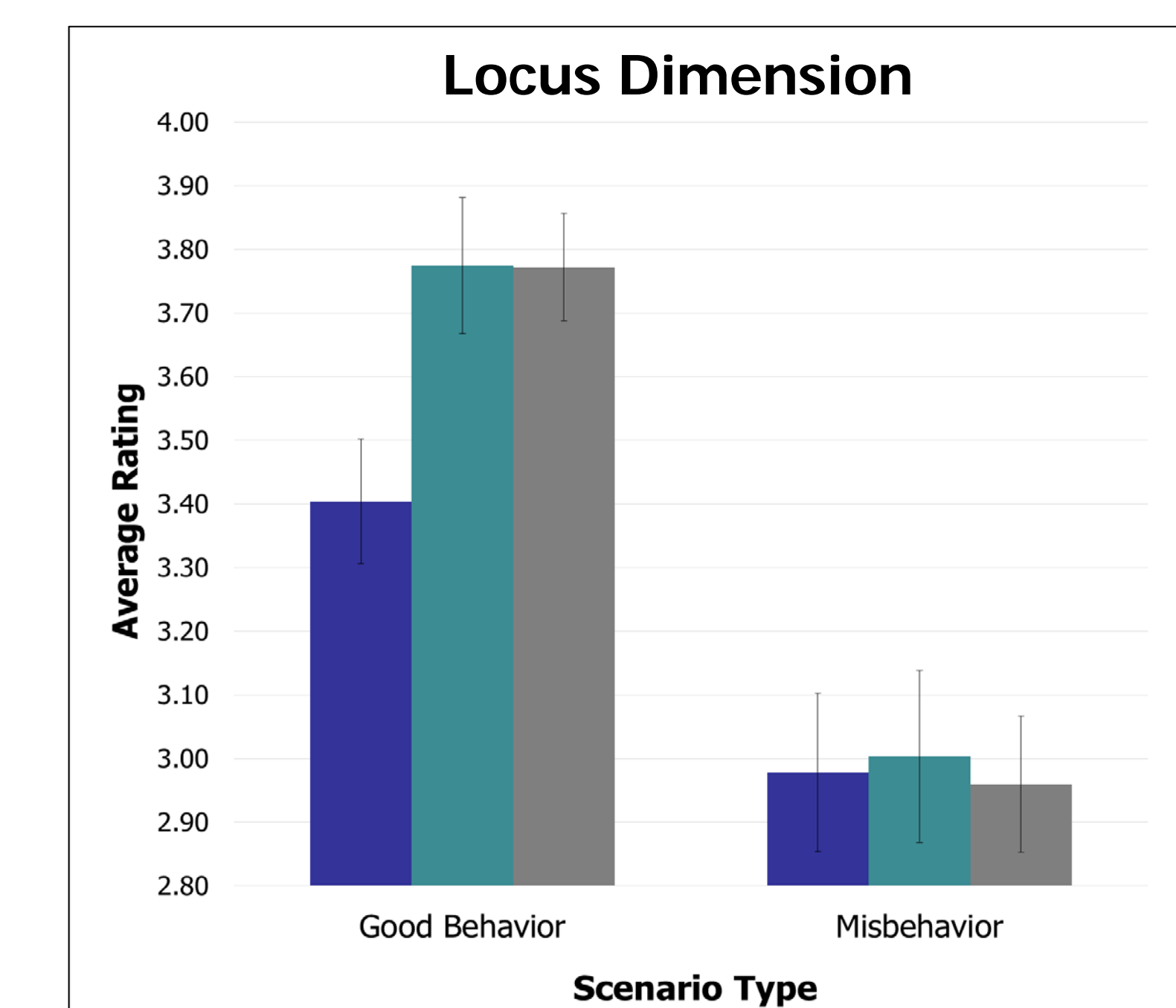
Question 1: Differences in Behavioral Examples

A 3 (group) x 2 (scenario type; good behavior or misbehavior) x 2 (behavioral theme; social or compliance) repeated-measures ANOVA was conducted to explore differences in behavioral examples provided by parents in the 3 groups. Child age was included as a covariate because it was associated with the Good-Compliance score ($r = -.21$). There were no significant main effects for group, scenario, or interactions, $p \geq .09$.

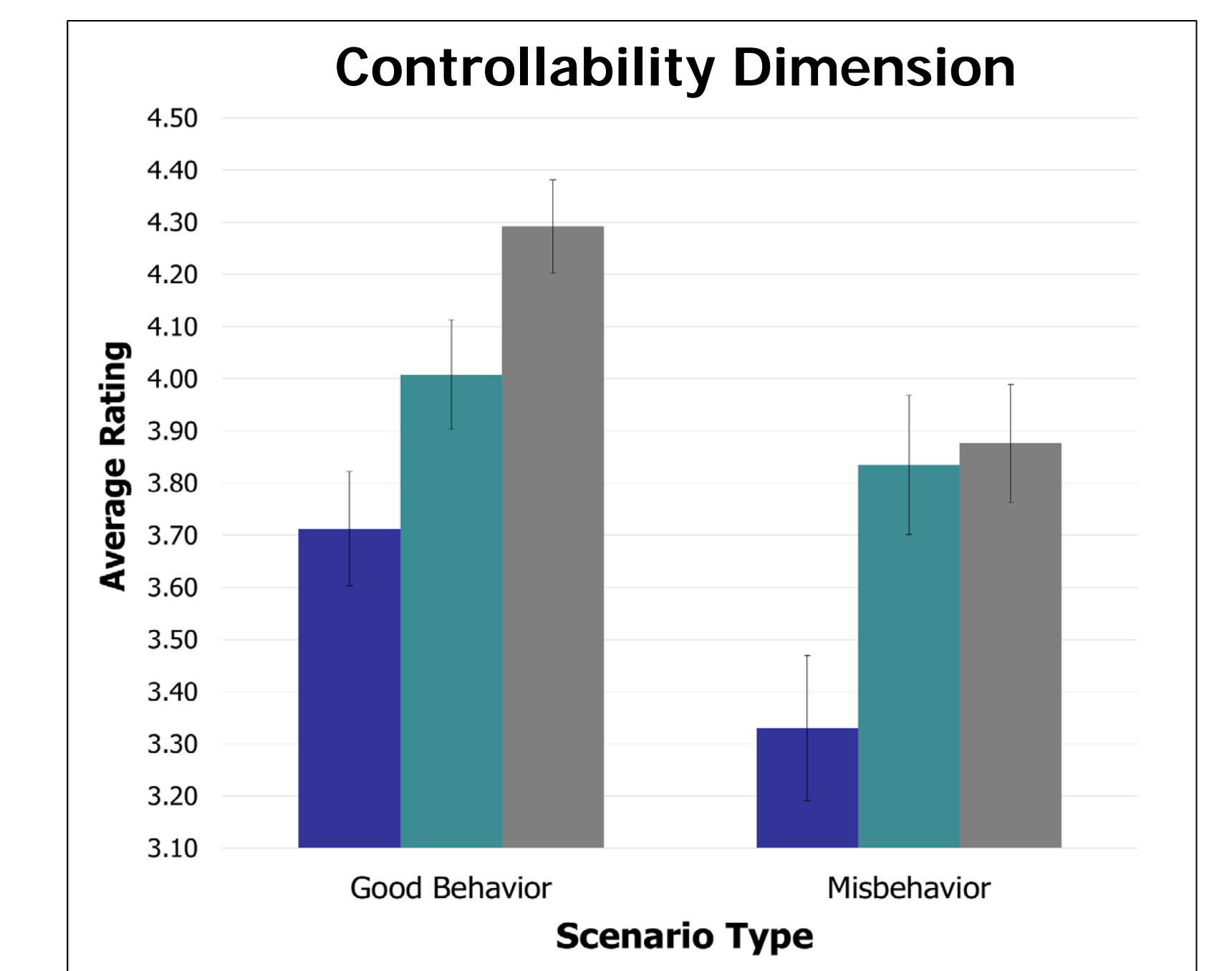
Question 2: Differences in Attributions for Behavior

A 3 (group) x 2 (scenario type) repeated-measures ANOVA was conducted for each attributional domain. Child's age was associated with the stability ($r = -.18, .29$) and controllable ($r = -.29, -.25$) domains, and caregiver age was associated with the stability ($r = -.21$) and internal ($r = -.26$) domains, so they were included as covariates in the appropriate analyses. Bonferroni's adjustment was used for all post-hoc analyses.

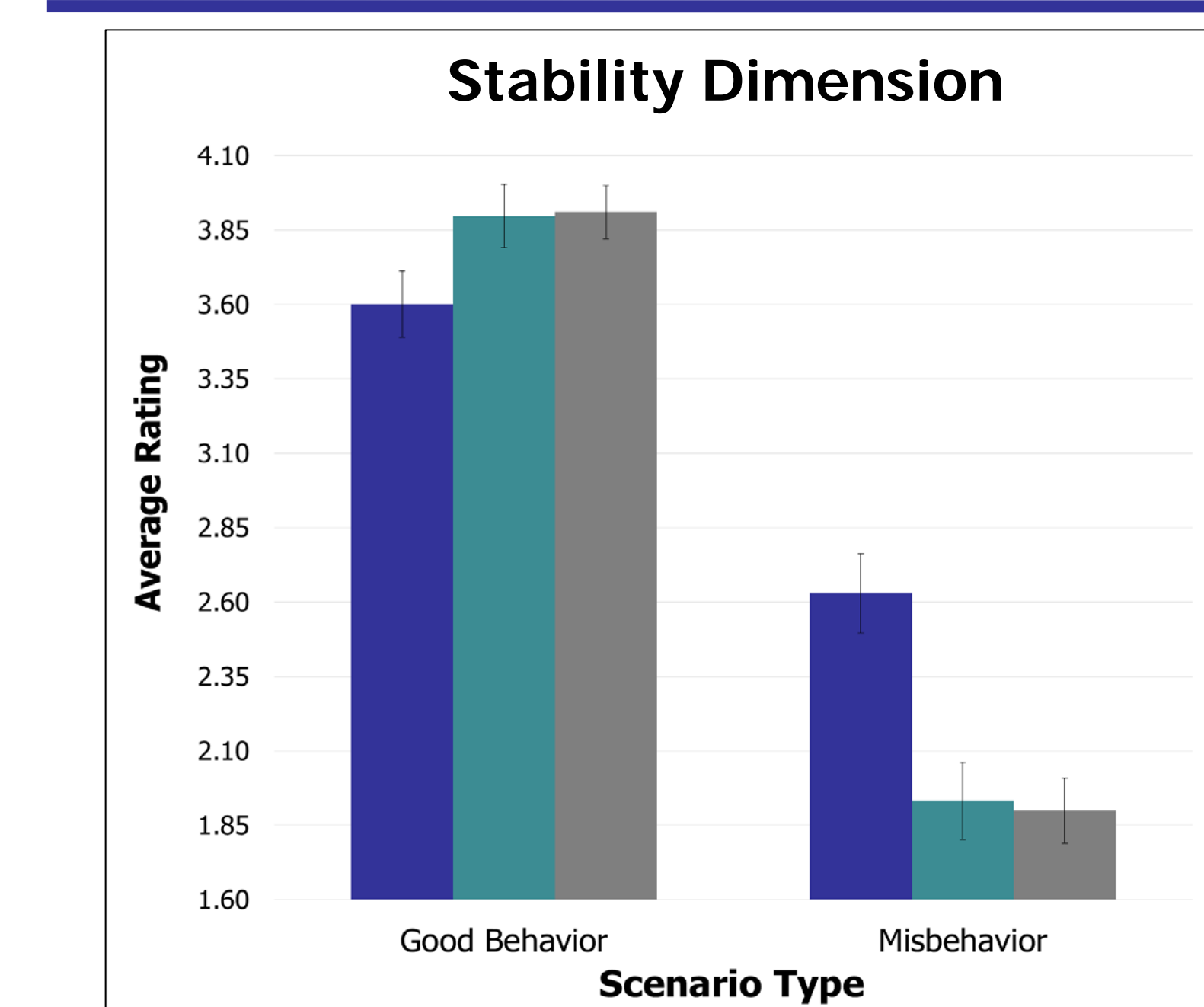
■ ASD Concerns ■ Developmental Concerns ■ No Concerns



A significant main effect for scenario type indicated that, across all groups, parents rated good behaviors as more internally caused than misbehaviors ($p < .001$). There was no significant main effect for group or interaction, $p \geq .20, .11$.



A significant main effect for group indicated that the ASD Concerns group rated their child's behavior as less under the child's control than both the Developmental Concerns group ($p = .03$) and the No Concerns group ($p < .01$). There was no significant main effect for scenario type or interaction, $p \geq .92, .30$.



A significant main effect for scenario type indicated that across all groups, parents rated their child's good behavior as more stable than misbehavior, $p < .01$. While there was no main effect for group, $p = .12$, a significant interaction between group and scenario type indicated that the ASD Concerns group rated their child's misbehavior as more stable than both the Developmental Concerns group ($p < .01$) and the No Concerns group ($p < .01$).

Conclusions

Parents with ASD concerns held different attributions about their child's behavior relative to parents in the other groups, despite not demonstrating differences in the types of behavioral examples provided in their descriptions of child behaviors. When compared to parents with developmental concerns and no concerns, parents with ASD concerns rated their child's overall behavior as less under their child's control and rated their child's misbehavior as more stable. Our findings for controllability are consistent with those by Whittingham and colleagues (2008), and our findings for locus were consistent with those by Hartley and colleagues (2013); however, our findings for stability are variant from both studies. In addition, the inclusion of other groups of parents allowed us to examine the attributional patterns of parents with ASD concerns relative to other parents. It is interesting to note that this group differed not only from parents of typically developing children, but also from parents of children with developmental concerns. The possibility that their child may have a pervasive disorder such as ASD may cause parents with ASD-related concerns to interpret their young child's behavior as more permanent and out of the child's control – even before receiving a diagnosis – than parents with other types of concerns, or no concerns.

Beyond the potential implications for parent-child interactions, including parenting style (Jacobs, Woolfson, & Hunter, 2017), these findings have implications for parents' seeking, adopting, and adhering to intervention services. In accordance with a model proposed by Morrissey-Kane & Prinz (1999), parents who attribute their child's behavior as permanent and uncontrollable may feel that their child's behavior cannot be affected and therefore may not be engaged in or motivated to access treatment.