Girls vs. Boys with Autism Spectrum Disorder: Differences in Parent-Child Relationship Quality

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INTRODUCTION

Autism spectrum disorder (ASD) is a neurodevelopmental condition characterized by impairments in social communication and repetitive/restrictive interests that affects in 1 in 54 children in the U.S.[3]

The parent-child (p-c) relationship is important because it is crucial in shaping the child's later interpersonal relationships and their own functioning in adulthood[2].

- In non-ASD samples, research suggests that fathers tend to be more involved with their sons, while mothers tend to be more supportive and involved regardless of their child's gender[5].
- Boys and girls with ASD may have different ASD symptoms profiles. One meta-analysis conducted found that boys demonstrated more restricted and repetitive behaviors than girls after age six, although differences in social behavior and communication were inconclusive[6].
- Thus far, most research on parent-child relationships in ASD has focused exclusively on the mother-child relationship[4].

It is not clear if (1) there are important mother-father differences in the p-c relationship or (2) if differences exist in p-c relationship quality when comparing boys and girls with ASD.

THE CURRENT STUDY

The purpose of this study was to evaluate potential sex differences in the observed parent-child relationship quality of mothers and fathers with a child with ASD. We hypothesized that there would be differences in the observed parenting of mothers and fathers because of the limited research on observed parenting in fathers of children with ASD.

METHOD

Data for this study used a subsample of a larger, longitudinal study of families with a child with ASD. All girls in the study with two parents (mother and father) were matched to a boy in the study of the same age. Intellectual disability was also considered when creating the matched sample.

Participants:

- 22 children [5 to 18 years; Mean age 10.77(4.53)] with ASD and both parents.
- All parents were Non-Hispanic, White and most had at least a college education (90.5% of mothers; 66.7% of fathers).
- The median household income was $100-110,000 annually.

Procedure:

- During the study visits for Time 5 of the study, each mother and father engaged in a 7-minute, videotaped interaction with their child.
- This interaction involved attempting to complete a directed task involving a puzzle or Lego set.

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P-C Interaction Coding:

Videos were each viewed once and coded on parent, child, and dyadic variables, each on a scale of 1 to 5 using the Parent Child Interaction Rating Scale[1] (PCIRS), a well –established coding system used with p-c interactions.

- Parent variables: Positive Affect, Negative Affect, Intrusiveness, Sensitivity, *Detached, Stimulate Cognition
- Child variables: Positive Mood, Negative Mood, Lively/Active, Sociability, Sustained Attention, *Demandingness
- Dyadic Variables: *Conflict, Pleasure

* No variability in coded behavior, was not included in analysis

DATA ANALYSIS

- A series of 2x2 ANOVAs were conducted in SPSS 26 to test the hypothesis that there would be differences in parent-child interactions depending on parent and child gender.
- We followed-up any significant interactions with simple main effects analyses to determine the nature of mean differences present. These results are plotted below to aid in interpretation of the data.

RESULTS

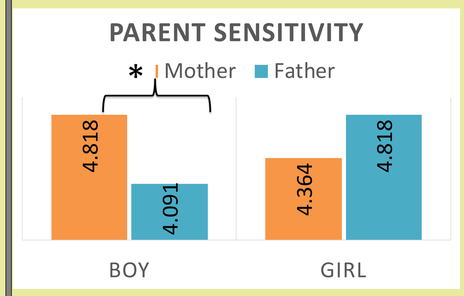
No statistically significant main effects of parent (mother v. father) or child sex (girl v. boy) were found for any of the coded variables (marginal means can be found in Table 1).

Table 1. *Marginal means for all study variables*

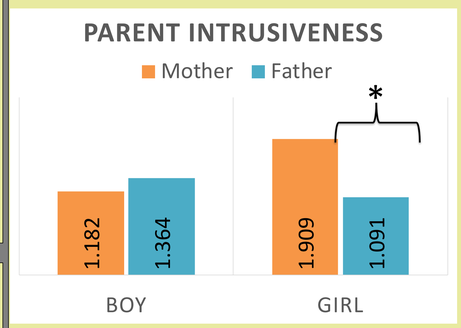
Coded Variable	MOTHER		FATHER	
	Girl (*M, SD*)	Boy (*M, SD*)	Girl (*M, SD*)	Boy (*M, SD*)
Parent Positive Affect	3.54(.33)	4.00(.33)	4.00(.33)	3.45(.33)
Parent Negative Affect	1.09(.08)	1.00(.08)	1.00(.08)	1.18(.08)
Sensitivity	4.36(.18)	4.82(.18)	4.82(.18)	4.09(.18)
Intrusiveness	1.91(.26)	1.18(.26)	1.09(.26)	1.36(.26)
Stimulate Cognition	3.82(.29)	3.64(.29)	3.73(.29)	3.27(.29)
Dyadic Pleasure	2.00(.39)	2.09(.39)	1.73(.39)	1.91(.39)
Child Positive Mood	2.91(.37)	2.64(.37)	3.00(.37)	2.54(.37)
Child Negative Mood	1.18(.13)	1.09(.13)	1.18(.13)	1.18(.13)
Child Lively Active	3.09(.19)	3.09(.19)	3.00(.19)	3.27(.19)
Sociability	3.18(.32)	3.00(.32)	3.54(.32)	3.00(.32)
Sustained Attention	4.45(.26)	4.82(.26)	4.64(.26)	4.00(.26)

- There was a significant parent*child sex interaction for **parent sensitivity** [$F(1, 43) = 10.432$, $p = .002$].
- We found a trending interaction for **parent intrusiveness** [$F(1, 43) = 3.667$, $p = .06$] and **child sustained attention** [$F(1, 43) = 3.559$, $p = .06$].

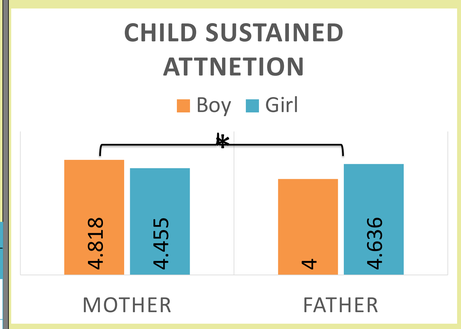
RESULTS CONT.



Mothers were more sensitive than fathers to sons ($M_{diff} = 0.73$, $p = .008$).



Mothers were **more intrusive with daughters** compared to fathers ($M_{diff} = 0.82$, $p = .04$).



Boys displayed **more sustained attention during interactions with mothers** compared to fathers ($M_{diff} = 0.82$, $p = .04$).

CONCLUSIONS

- These findings indicate that there are some demonstrated differences in the ways mothers and fathers interact with their children with ASD depending on child gender.
- Finding that mothers were more sensitive towards sons than fathers may stem from the belief that mothers are generally more sensitive towards their children in all samples, not just ASD. This could reinforce the ways parents interact with their sons regarding sensitivity.
- Other differences may exist, but small sample size limits the ability to detect such findings.
- Future research should incorporate larger samples and aim to include a more diverse sample.

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