

INTRODUCTION

Background

- 1 in 59 children has Autism Spectrum Disorder (ASD; 1.7%) – CDC, 2018
- As of 2011, between 0.7 and 1.9% of the college population had a diagnosis of ASD¹
- Moreover, there is evidence that around 35% of 18-year-olds with ASD attend college²
- ASD is associated with executive functioning and social reciprocity difficulties, which can make adjusting to the college environment difficult without additional assistance
- Parents' roles in their children's lives do not end when the child graduates high school. The transition into college life and adulthood can be a particularly stressful period for parents of children with developmental disabilities.
- Studies have suggested that parents of children with ASD are more stressed than Neurotypical parents⁵, that child symptom severity is related to parent stress, and that social supports mitigate parent stress.
- Extant research suggests that parent stress levels are linked to lower marriage quality⁶, lack of social support⁷, and greater child symptom severity⁸

Aim

- The purpose of the present study was to investigate factors related to stress levels in parents of college students with ASD.

Hypotheses

- H1:** Unmarried parents will have higher stress compared to married parents.
- H2:** Parents without a bachelor's degree will have higher stress compared to parents with a bachelor's degree or higher.
- H3:** Parents of children with co-existing psychiatric diagnoses will have higher stress compared to parents of children with ASD alone.
- H4:** There will be a significant association between parent stress and parent expectations for their child with ASD.

METHODS

Participants

- Respondents ($n = 35$) were parents of students enrolled in the Bridges to Adelphi program recruited via e-mail for an online survey.
- Most participants ($n = 30$, 86%) were mothers of students enrolled in the Bridges to Adelphi program. Remaining participants ($n = 5$, 14%) were fathers of Bridges students.
- Thirty-five percent response rate to online solicitation

Procedure

- Respondents were asked to complete only one online survey per family.
- Participants completed a sociodemographic questionnaire with items about child's medical and psychiatric history.
- Participants completed the Parent Stress Questionnaire (PSQ)³, which assesses current and ongoing parent stress across five life domains: health, close relationships, work, financial, and housing.
- Participants completed the Parent Expectations Questionnaire (PEQ)⁴, which assesses parents' expectations of future outcomes for their child with autism.

STATISTICAL ANALYSES and RESULTS

Statistical Analyses

Paired-sample t-tests were conducted to compare parent stress levels in the following:

- H1: Married vs. Unmarried Parents
- H2a: Parents who *do not* have a bachelor's degree vs. parents who have a bachelor's degree or higher (Parent 1; parent who filled out the questionnaire)
- H2b: Parents who *do not* have a bachelor's degree vs. parents who have a bachelor's degree or higher (Parent 2; parent who *did not* fill out the questionnaire)
- H3: Parents of children with co-existing psychiatric diagnoses vs. parents of children with ASD diagnosis only

Bivariate correlations were conducted to examine the association between:

- H4: Parent Stress and Parent Expectations for their child with ASD

Results

- H1: There was a significant difference in parent stress levels for married parents ($M = 1.31$, $SD = 0.37$) and unmarried parents ($M = 1.80$, $SD = 0.57$); $t(30) = 2.32$, $p = 0.03$.
- H2a: There *was not* a significant difference in parent stress levels between parents *without* a bachelor's degree ($M = 1.50$, $SD = 0.42$) and parents with a bachelor's degree or higher ($M = 1.36$, $SD = 0.23$); $t(30) = 0.63$, $p = 0.53$.
- H2b: There was a difference in stress levels for parents who had a partner *without* a bachelor's degree ($M = 1.68$, $SD = 0.23$) and parents who had a partner with a bachelor's degree or higher ($M = 1.31$, $SD = 0.43$); $t(22) = 1.87$, $p = 0.08$. However, this difference did not meet conventional levels of statistical significance.
- H3: There *was not* a significant difference in parent stress levels for parents of children with co-existing psychiatric diagnoses ($M = 1.47$, $SD = 0.46$) and parents of children with only an ASD diagnosis ($M = 1.30$, $SD = 0.38$); $t(29) = 1.10$, $p = 0.28$.
**Note: In the present sample, "co-existing diagnoses" include mood disorders, ADHD, and OCD.*
- H4: There was a trending negative association between parent stress and parent expectations for their children with ASD ($r = -0.32$, $p = 0.10$).

Table 1: Parent Demographics

	n (%)
Relationship to Student	
Mother	30 (85.7)
Father	5 (14.3)
Missing	0 (0)
Marital Status	
Married	30 (85.7)
Not married (never married, separated, divorced, widowed)	5 (14.3)
Missing	0 (0)
Household Income	
Less than \$100k	6 (17.1)
Greater than/equal to \$100k	28 (80.0)
Missing	1 (2.9)
Employment Status of Parent 1	
Employed	26 (74.3)
Unemployed (homemaker, retired, out of work)	9 (25.7)
Missing	0 (0)
Employment Status of Parent 2	
Employed	23 (65.7)
Unemployed (homemaker, retired, out of work)	2 (5.7)
Missing	10 (28.6)
Education Level of Parent 1	
Less than Bachelor's degree	4 (11.4)
Bachelor's degree or higher	31 (88.6)
Missing	0 (0)
Education Level of Parent 2	
Less than Bachelor's degree	5 (14.3)
Bachelor's degree or higher	20 (57.1)
Missing	10 (28.6)
Overall Parent Stress ($n = 32$)	1.38 (SD = 0.42)
Overall Parent Expectations ($n = 29$)	3.08 (SD = 0.36)

Note. All data reported here are for Parent 1 (i.e., the parent who filled out the questionnaire), unless otherwise specified.

DISCUSSION

- H1:** Consistent with expectations, unmarried parents had higher stress compared to married parents.
- H2a:** Parents without a bachelor's degree were *not* found to have higher stress compared to parents with a bachelor's degree or higher. This suggests that higher education does not equate to lower parent stress.
- H2b:** A trending difference was found, such that parents who had a partner without a bachelor's degree had higher stress compared to parents who had a partner with a bachelor's degree or higher. It is possible that parent stress levels are more contingent on spouse's level of education, perhaps via intermediary variables such as family income.
- H3:** Inconsistent with expectations, parents of children with co-existing psychiatric diagnoses *did not* have higher stress compared to parents of children with ASD alone. The limited range and magnitude of symptomology in this sample may be responsible for this finding.
- H4:** A trending negative association between parent stress and parent expectations for their child with ASD was found. This finding suggests that higher parent expectations were linked to lower parent stress, and vice versa.

Limitations

- Small sample size ($n = 35$) and low statistical power
- Only parents of the students enrolled in the Bridges to Adelphi program were recruited for the study
- Mostly mothers ($n = 30$, 85.7%) filled out the questionnaires

Future Research

- Investigate the relationship between parent stress and child psychiatric comorbidity in a larger, more diverse sample
- Explore the association between parent expectations and parent stress; in a larger sample, researchers might explore whether child symptom severity mediates this association
- Examine years of postsecondary education (a continuous variable) in relation to parent stress; also consider the role of intermediary variables (e.g., family income) in this relationship

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REFERENCES

- White, Ollendick, & Bray, 2011
- Integrate Autism Employment Advisors, n.d.
- Bromberger & Matthews, 1996; Troxel, Matthews, Bromberger, & Sutton-Tyrell, 2003
- Mutua, 2001; Ivey, 2004
- Wolf, Noh, Fisman, & Speechley, 1989; Giovagnoli, et. al., 2015; Bitsika & Sharpley, 2004; Ingersoll & Hambrick, 2011; Bonis, 2016
- Chapman, Herzog, & Maduro, 2013; Johnson & Simpson, 2013; May, Fletcher, Dempsey, & Newman, 2015; Hartley, Papp, & Bolt, 2018
- Benson & Karlof, 2008; Hsiao, 2018; Kuhn, Ford & Dawalt, 2018; Connolly & Novak, 2007; Weiss, Macmullin, & Lunskey, 2015; Bromley, et. al., 2004; Benson, 2012; Lindsey & Barry, 2018; Jurkowitz, 2013; Krakovich, McGrew, Yu, & Ruble, 2016; Couzens, Muspratt, & Rodger, 2010; Falk, Norris, & Quinn, 2014; Liesen, 2012; Stadnick, Taylor, & Brookman-Frazee, 2010; Kuravackel, et. al. 2018
- Argumedes, Lanovaz, & Larivée, 2018; Bromley, et. al., 2004; Schwartzman, et. al., 2018; Lyons, et. al., 2010

*This research was approved by the Adelphi University IRB