2021 Gatlinburg Conference Symposium Submission

Symposium Title: Autism in College: Exploring First-year Success, Sexual Victimization, and Discrimination Experiences

Chair: Lauren Baczewski[1]

Co-Chair: Maria Pizzano[1]

Discussant: Alexandra Sturm[2]

Overview: Only 36% of young adults with a diagnosis of Autism Spectrum Disorder (ASD) attend postsecondary education, compared to 65-69% of neurotypical peers (Roux et al., 2015; National Center for Education Statistics, 2017). Additionally, autistic college students are less likely to complete their degrees compared to peers with other disabilities (Newman et al., 2011). Evident disparities in college access and retention for students with autism underscore the need for research that explores self-reported experiences of autistic students on campus. In particular, it is critical that we better understand student experiences that impact retention, wellbeing, and success in college. Therefore, this symposium includes presentations that examine self-reported experiences of autistic students in regard to their first year adjustment, sexual victimization and feelings of unsafety on campus, and perceived discrimination and bias. The first presentation will discuss self-beliefs and adjustment in the first year of college and how they predict to end-of-year psychosocial and campus satisfaction outcomes. The second presentation explores the role of gender, harassment, and autism diagnosis in unwanted sexual contact and sexual assault experiences. The final presentation examines perceived discrimination, bias, and harassment for students with ASD in college. Collectively, these presentations provide insight to the college experiences of students on the autism spectrum and allow for consideration of potential supports to encourage success and wellbeing in higher education.

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Paper 1 of 3

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Paper Title: The Role of First Year Adjustment in Predicting Freshman Year Success and Wellbeing for Students with Autism

Authors: Lauren Baczewski[1]; Maria Pizzano[1], Connie Kasari[1], Alexandra Sturm[2]

Introduction: Postsecondary education acts as a gateway to a host of positive adulthood outcomes, including a greater likelihood to obtain employment and live independently (Roux et al., 2015). Autistic students are less likely to attend college than neurotypical students (Roux et al., 2015; National Center for Education Statistics, 2017) and are less likely than peers with other diagnoses to complete their studies (Anderson et al., 2017; Newman et al., 2011). The current study aimed to understand predictors of end-of-first-year success (i.e. wellbeing, satisfaction, and GPA) among autistic students who successfully completed their first year of postsecondary education.

Methods: Participants included 222 college freshmen (74 with autism, 74 with ADHD, 74 neurotypical) from 2- and 4-year colleges and universities across the United States, matched on key demographic and psychosocial characteristics. Students completed 2 self-report surveys created by the Higher Education Research Institute (HERI) at UCLA: The Freshman Year Survey (TFS) at the start of freshman year, and the Your First College Year Survey (YFCY) at the end of the first year. Separate general linear models were used to determine important psychosocial predictors (i.e., beginning of year social self-confidence, beginning of year intellectual self-confidence, ease of making new friends, and balancing academic and social demands) of end-of-year constructs (i.e., end-of-year social self-confidence, psychological stress, sense of belonging, college satisfaction, and intellectual self-confidence). Models also included an interaction between key predictors and diagnostic groups and covariates included frequency of depressive symptoms at college entry, college selectivity, and year of survey completed. An adjusted alpha level of .0083 was used to correct for multiple tests.

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Results: Interactions with group were nonsignificant for all models ($p > 0.01$). Therefore, beginning of year social self-confidence, intellectual self-confidence, ease of making new friends and balancing academic and social demands were equally important to end-of-year outcomes for neurotypical students, students with ASD, and students with ADHD across analyses. Predictors in models not described below (i.e., intellectual self-confidence for psychological stress, social self-confidence, satisfaction, and sense of belonging, ease of making friends for academic success, and ability to balance social and academic demands for intellectual and social self-confidence) were nonsignificant, $p > 0.01$.

Intellectual self-confidence at the beginning of the year predicted end-of-year GPA ($B = 0.16$; $F_{(1, 186)} = 14.14$; $p < 0.001$) and end-of-year intellectual self-confidence ($B = 0.75$; $F_{(1, 151)} = 93.64$; $p < 0.001$). Social self-confidence at the beginning of the year predicted end-of-year social self-confidence ($B = 0.39$, $F_{(1, 186)} = 184.87$; $p < 0.001$), psychological stress ($B = -0.06$; $F_{(1, 186)} = 36.40$; $p < 0.001$), sense of belonging ($B = 0.04$; $F_{(1, 186)} = 12.18$; $p < 0.001$), and campus satisfaction ($B = 0.11$; $F_{(1, 186)} = 11.46$; $p < 0.001$).

Students who reported greater ease of making friends in the first year were more socially self-confident at the end of freshman year ($B = 0.30$; $F_{(1, 186)} = 11.91$; $p < 0.001$), experienced less psychological stress ($B = -0.60$; $F_{(1, 186)} = 77.71$; $p < 0.001$), reported greater end of year campus satisfaction ($B = 1.01$; $F_{(1, 183)} = 52.91$; $p < 0.001$), and end-of-year sense of belonging ($B = 0.75$; $F_{(1, 186)} = 61.45$; $p < 0.001$). Those who reported a greater ease of making friends also reported lower end of year intellectual self-confidence ($B = -0.55$; $F_{(1, 151)} = 10.79$; $p = 0.001$).

Ability to balance social and academic demands in the first year predicted end-of-year GPA ($B = 0.67$; $F_{(1, 186)} = 10.77$; $p = 0.001$), end-of-year psychological stress ($B = -0.85$; $F_{(1, 186)} = 40.08$; $p < 0.001$), end-of-year sense of belonging ($B = 0.71$; $F_{(1, 186)} = 47.68$; $p < 0.001$), and end-of-year campus satisfaction ($B = 1.56$; $F_{(1, 183)} = 24.51$; $p < 0.001$). Those who felt that they were better able to balance social and academic demands had a higher end-of-year GPA, better psychological health, stronger end-of-year sense of belonging and higher ratings of campus satisfaction.

Discussion: Findings of this study illustrate the important role of first year adjustment to competing social and academic demands in determining first year success and wellbeing. Given that students with autism are less likely to enroll in college and to finish their degrees, understanding factors that lead to positive first year outcomes is important in providing needed supports to first-year college students.

The results of the current study underscore previously reported qualitative findings (e.g. Van Hees et al., 2015) in emphasizing the critical role of first year adjustment on freshman year success, satisfaction, and wellbeing. Creative programming initiatives are needed to better support the social and academic adjustment of autistic students in college.

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2021 Gatlinburg Conference Symposium Submission

Paper 2 of 3

Paper Title: Sexual Victimization and Feelings of Unsafety in Undergraduate Students with Autism Spectrum Disorder

Authors: Natalie Libster[1] and Alexandra Sturm[2]

Introduction: Sexual victimization is a critical and prevalent issue across college campuses, especially among women. Due to social challenges, limited sexual knowledge, and age appropriate sexual interest, undergraduate students with Autism Spectrum Disorder (ASD) are also at-risk of experiencing sexual victimization (Brown-Lavoie et al, 2014). No studies to date have examined rates of sexual assault in undergraduate students with ASD, and few studies have examined rates of unwanted sexual contact (Brown et al., 2017). Furthermore, prior research has shown that undergraduate students who have experienced sexual victimization, particularly women, feel more unsafe on campus (McCreedy & Dennis, 1996). Therefore, undergraduate students with ASD, who are at-risk of experiencing sexual victimization as well as overall harassment (Weiss & Fardella, 2018), may feel less safe on campus compared to their neurotypical peers.

Methods: The current study was supported by the Autism Intervention Research Network on Behavioral Health, through grant number UT3MC39436. The study analyzed secondary data collected by the Cooperative Institutional Research Program (CIRP) Diverse Learning Environments (DLE) survey, which is developed and administered by the Higher Education Research Institute (HERI) at the University of California, Los Angeles. Data was collected from DLE surveys administered between 2017 and 2020, as these surveys included questions about experiences of sexual assault and unwanted sexual contact, feelings of campus safety, and self-reported ASD diagnosis. Participants consisted of 290 undergraduate students (125 women) with a reported diagnosis of ASD as well as 290 case-controlled matched students who reported not having a psychological or physical disability. Logistic regression analyses were implemented to determine predictors of sexual contact and sexual assault, including gender, ASD diagnosis, and frequency of harassment. Sexual contact and sexual assault were each measured by one binary item ("Since you entered this college, have you had any unwanted sexual contact? Since you entered this college, has someone sexually assaulted or attempted to sexually assault you?"). A multinomial regression analysis was then implemented to determine predictors of feelings of unsafety on campus. Feelings of unsafety was measured by one item ("I feel unsafe on this campus") that was measured on a 4-point Likert scale (1 = Strongly Disagree, 4 = Strongly Agree).

Results: Logistic regression analyses revealed that the odds of experiencing sexual contact were 3.00 times higher for women compared to men ($p < .01$), and the odds of experiencing sexual assault were 2.98 times higher for women compared to men ($p = .05$). For a one unit increase in harassment frequency, the odds of experiencing sexual contact and sexual assault increased by 1.04 ($p < .01$). The multinomial regression analysis revealed that the odds of strongly agreeing vs. strongly disagreeing with the statement, "I feel unsafe on this campus," was 4.44 higher for women compared to men ($p < .01$), 7.24 times higher for students with ASD compared to neurotypical students ($p = .02$), and 7.56 times higher for non-white students compared to white students ($p < .01$). For a one unit increase in harassment frequency, the odds of strongly agreeing vs. strongly disagreeing with the statement increased by 1.03 ($p = .01$).

Discussion: The results of this study found that gender and harassment frequency, but not ASD diagnosis, predicted sexual contact and sexual assault among undergraduate students. In addition, gender, ASD diagnosis, race, and harassment frequency predicted feelings of safety on campus. The number of individuals with ASD who are enrolling in institutions of higher education is increasing (Geller & Greenberg, 2010), and as demonstrated in the current study, these students feel more unsafe on campus compared to their neurotypical peers. Of note, our study does not examine why students with ASD feel more unsafe on campus, which will be addressed in our next steps.

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Paper 3 of 3

Paper Title: Postsecondary Education for Students with Autism Spectrum Disorder: Discrimination, Bias, and Social Disconnection

Authors: Sohyun Kim[1] and Alexandra Sturm[2]

Introduction: Outcomes for individuals with Autism Spectrum Disorder (ASD) have been steadily improving over the past few decades, and an increasing number of young adults with ASD are pursuing their academic goal of attending postsecondary education (NCSER, 2011). However, studies show that postsecondary students with ASD are more likely to face loneliness, anxiety, depression, and deliberate social exclusion during their college years when compared to their neurotypical (NT) peers (Gelbar et al. 2015; Gurbuz et al. 2019; Jackson et al. 2017; McLeod et al. 2019). Considering these findings, it is no surprise that students with ASD consider withdrawing from their college significantly more than their NT peers, and they are less likely to complete their postsecondary education (Gurbuz et al. 2019). This study compares perceived experiences of discrimination, bias and harassment among college students with ASD and their NT peers. Further, predictors of perceived experiences of discrimination, bias and harassment in college students with ASD were examined.

Methods: This study used the national survey data set Diverse Learning Environment (DLE) from years 2017 to 2020. This survey was developed by the Higher Education Research Institute (HERI) at the University of California, Los Angeles (UCLA) and was administered nationwide by the Cooperative Institutional Research Program (CIRP) among college students attending 2-year and 4-year colleges. The DLE captures student perceptions regarding their experiences with faculty, staff and peers at their respective college and their perceptions on the schools' climate relating to diversity and student learning outcomes (HERI, 2020). The analysis included 358 postsecondary students with ASD and 358 NT students, matched on their race, gender, income, institution type (e.g., 2-year college, 4-year college), and first-generation college student status. These participants completed the DLE survey at one point during year 2017 to 2020 while attending their 2-year college, 4-year college, or university. To address the first aim of comparing perceived experiences of discrimination, bias and harassment among the ASD and NT group, two factor scores, discrimination/bias, and harassment were used to compare the two groups' experiences using t-test. These factors are scored to have a normalized mean of 50 with a standard deviation of 10. To address the second aim of identifying predictors of perceived discrimination, bias and harassment in college students with ASD, multiple regression was used.

Results: The two groups of students differed significantly on both scores (i.e., discrimination and bias, harassment) such that the ASD group scored significantly higher than the NT group. Further, students' gender, first-generation status, their feeling of social connectedness, and institutional commitment to diversity were found to have significant association with experiencing discrimination, bias and harassment for students with ASD. More specifically, female students were more likely to experience perceived discrimination and bias, while first generation college students were more likely to experience perceived harassment. Further, students who felt more connected to campus reported less discrimination and bias, and students who rated their institution's commitment to diversity as high also reported less discrimination and bias.

Discussion: The results suggest that, in spite of the improved outcomes for individuals with ASD and academic and non-academic services that are currently in place for college students with ASD, they continue to experience higher rates of perceived discrimination, bias and harassment when compared to their NT peers. Further studies should continue to explore the underlying factors that contribute to the differences in perceived discrimination, bias, and harassment between college students with ASD and their NT peers. Additionally, longitudinal examination of the consequences of these perceptions would be helpful in understanding long term effects on their emotional health. Moreover, support systems that foster social connectedness within campus, and increase institution-wide commitment to diversity and civic engagement would be beneficial in promoting positive school experiences for students with ASD.

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