

Title: Community Factors and High School Services for Diploma-Track Students on the Autism Spectrum

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Introduction: Youth on the autism spectrum have worse postsecondary outcomes than their peers with other developmental disabilities (Anderson, Shattuck, Cooper, Roux & Wagner, 2014; Orsmond, Shattuck, Cooper, Sterzing & Anderson, 2013; Ross & Svajlenka, 2016; Roux et al., 2015; Taylor & Mailick, 2014). These poor outcomes exist for youth on the autism spectrum without intellectual disability, despite the fact that these students may be receiving a regular diploma (Taylor, Henninger, & Mailick, 2015; Taylor & Seltzer, 2011). Transition supports have been linked with better postsecondary outcomes, yet previous research indicates youth on the autism spectrum of lower socioeconomic backgrounds and ethnic minorities are less likely to receive supports and services (Eilenberg, Paff, Harrison, and Long, 2019). One possible explanation for these disparities in service provision and outcomes include variability in community resources, which may relate to socioeconomic status, community type (i.e., rural, suburban or urban), and race or ethnicity (Eilenberg et al., 2019; Mello, Goldman, Urbano & Hodapp, 2016; Murphy & Ruble, 2012). This is particularly relevant in states that have a decentralized education system, where school funding is influenced by local taxes or socioeconomic background of the neighborhood in which it resides (Egalite, Fusarelli & Fusarelli, 2017). Therefore, the purpose of this study was to investigate whether high school transition services varied according to differences in community factors. Our research question was: Are the socioeconomic background and community type of a school's community associated with the number of transition services and referrals provided to diploma-track high school students on the autism spectrum?

Method: We analyzed data from an online survey of school personnel in one northeastern U.S. state. Participants were school personnel who reported having knowledge of the supports and services provided to students in their high school or district who have autism and plan to graduate with a regular diploma. The survey included 28 transition-related supports or services that were identified after a review of the literature. Participants were asked whether each listed service was regularly provided, occasionally provided, never provided, or provided via referral to an outside agency. The primary dependent variable was the total number of supports and services provided by the school. Each "regularly provided" service was counted as one and summed to identify the total number of supports and services regularly provided in the school or district to diploma-track students on the autism spectrum. Using the same approach, we created three sub-categories for number of employment, independent living, and postsecondary education supports. A similar overall variable and three sub-category summary variables were created for the number of referrals provided. The primary independent variables, socioeconomic background (median household income (MHI)) and community type, were assigned based on the participant reported zip code of their school or district.

Results: MHI had a positive, significant association with number of regularly provided overall supports ($r=.42, p=.001$), postsecondary education supports ($r=.28, p=.030$), employment supports ($r=.24, p=.061$), and independent living supports ($r=.43, p=.001$) and a negative, significant association with all referral categories: overall referrals ($r=.42, p=.001$), postsecondary education referrals ($r=.28, p=.030$), employment referrals ($r=.24, p=.061$), and independent living referrals ($r=.43, p=.001$). Exploratory analyses of the association between individual supports and referrals with MHI revealed significant differences ($p<.002$) for four types of supports with small to moderate, positive associations with MHI ($r= .25 - .46$). These supports included independent living, community travel and safety, and ADA accommodations for postsecondary education. There were also small to moderate, negative associations with MHI ($r_s= -.26, -.374$) and individual types of referrals, but none of these reached significance at the adjusted alpha level of .002. Furthermore, the amount of time spent in general education and number of diploma track students on the autism spectrum in the school moderated the association between MHI and number of overall supports ($p=.012, p=.02$ respectively). In schools with lower MHI, more time spent in general education or having fewer students on the autism spectrum in the school/district were associated with providing more transition supports, whereas the opposite was true for higher MHI schools. In our sample, MHI was strongly associated with community type ($p=.000$) and associations with

community type (urban vs. suburban communities) followed a similar pattern as the MHI findings, but overall associations with community type were less strong.

Discussion: These findings indicate discrepancies between number of transition supports provided based on median household income of the neighborhood per school or district. This finding is particularly significant in light of the federal guidelines that require schools to address income-related disparities (e.g., Every Student Succeeds Act; P.L. 114-95). Further, our findings offer some insight into additional factors that may influence the relationship of MHI and support provision, suggesting schools with higher MHI are better equipped to support greater numbers of students and schools in lower MHI may offer more transition supports when students spend most of their time in general education than in special education. Given these disparities (and in lieu of broader policy changes/implementation) schools in urban and low MHI communities face the challenge of devising low cost alternatives to providing comprehensive transition preparation for diploma-track students on the autism spectrum.

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