**Title**: Predictors of service access from before to after high school for autistic youth

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**Introduction**: As autistic youth transition to adulthood, they often experience a “service cliff”1 during which they lose access to many services.2,3,4 Autistic youth with intellectual disability (ID) may be particularly impacted by the service cliff, as they often receive more services in high school and have a challenging time accessing comparable services after high school.3 While previous studies have examined whether the effect of high school exit on service access differs for youth with and without ID,3 studies have not examined whether this differs between types of service, such as government programs that fund services versus the direct services themselves. To address this gap, the current study examined whether the effect of high school exit on number of services and unmet service needs for government programs and direct services differed for autistic youth with and without ID.

**Method:** The current study analyzed data from five timepoints of a randomized control trial. Participants included 166 caregivers of autistic youth in three states (IL, TN, WI). For each timepoint, caregivers reported if their youth was receiving 9 government programs (e.g., Medicaid, SSI) and 20 direct services (e.g., psychological counselling, transportation). The number of services received was summed at each timepoint for government programs and direct services. If caregivers indicated the youth was not receiving a service that was needed, it was coded as an unmet need. Four multilevel models (number of services and unmet needs for government programs and direct services) were analysed to determine whether the effect of high school exit on service access differed between youth with and without ID. Time since baseline, high school exit, and if the caregiver received the intervention were time-varying predictors. Person-level predictors of the random intercept were youth race/ethnicity and household income. Whether youth had ID was a person-level predictor of the random intercept and high school exit effect.

**Results**: Government Programs. Youth with ID received more government programs relative to those without ID (b=0.61, SE=0.31, p=.049). The cross-level interaction between ID status and high school exit was significant (b=0.84, SE=0.25, p=.001). The simple slope was significant for youth with ID (b=1.02, SE=0.21, p<.01), but not for youth without ID (b=0.18, SE=0.16, p=.28), indicating youth with ID (but not those without ID) had a significant increase in number of government programs after leaving high school. However, having ID did not predict unmet government program needs (b=0.10, SE=0.23, p=.682), and the effect of high school exit on unmet government program needs (b=-0.13, SE=0.28, p=.649). Regarding other person-level predictors, youth who identified as racial or ethnic minorities reported marginally fewer government programs (b=0.20, SE=0.30, p=.085) and more unmet government program needs at baseline (b=0.58, SE=0.18, p=.002). Additionally, youth in households with below state-median income had marginally higher unmet government program needs (b=0.35, SE=0.19, p=.068).

Direct services. The interaction of high school exit and having ID on unmet direct service needs was significant (b=0.82, SE=0.39, p=.038). The simple slope was significant for youth with ID (b=1.19, SE=0.34, p<.01), but not for youth without ID (b=0.33, SE=0.28, p=.24); this suggests for autistic youth with ID, unmet direct service needs increase post-high school. Additionally, youth who identified as racial or ethnic minorities (b=0.91, SE=0.32, p=.005) and youth from households with income below the state median experienced higher unmet direct service needs (b=0.73, SE=0.34, p=.032). The interaction was marginally significant for number of direct services, indicating number of direct services decreased after leaving high school for youth with ID (but not youth without ID) (b=-0.71, SE=0.40, p=.080).

**Discussion:** Results indicated that the effect of high school exit on service access differed for autistic youth with and without ID. Specifically, youth with ID received more government programs after exiting high school, whereas there was no high school exit effect on government programs for youth without ID. Aligning with prior research3, youth with ID (but not those without ID) had a greater decrease in access to direct services after high school exit. Additionally, results suggest other subgroups of autistic adults (racial and ethnic minorities, youth from households with lower income) are at a heightened risk for unmet service needs. Together, these findings suggest that an increase in government programs post-high school may not translate to more direct services for autistic youth with ID. A future area of research is whether person- and time-varying characteristics predict change over time for government programs and direct services.

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