

The Prevalence and Correlates of Involvement in the Criminal Justice System Among Youth on the Autism Spectrum

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Abstract This study examined the prevalence and correlates of involvement in the criminal justice system among a nationally representative sample of youth with autism. We examined whether youth had been stopped and questioned by police or arrested at 14–15 years old and 21–22 years old. By age 21, approximately 20% of youth with autism had been stopped and questioned by police and nearly 5% had been arrested. Female youth were less likely to be involved in the criminal justice system, whereas youth displaying externalizing behaviors were more likely to be involved in the criminal justice system. Further research is needed to investigate factors associated with involvement in the criminal justice system among youth with autism and to implement prevention strategies.

Keywords Autism · Autism spectrum disorder · Transition-age youth · Criminal justice involvement · Risk factors · Prevalence

Introduction

The prevalence of autism spectrum disorder (ASD) is currently 1 in 68 children in the United States (Christensen et al. 2016), with nearly 50,000 youth on the autism spectrum turning 18 years old each year (Shattuck et al. 2012). Transitioning youth may experience more independence and community participation as they enter adulthood; however, these overall positive changes may be accompanied

by increased levels of risk. Previous research suggests that individuals on the autism spectrum may be overrepresented in the criminal justice system (CJS) compared to the general population (Howlin 2004; Vermeiren et al. 2006; Cashin and Newman 2009). Yet, virtually no research has used population-level data to examine the prevalence and risk factors.

Individuals on the autism spectrum tend to have deficits in social communication and social interactions. They can present restricted, repetitive patterns of behavior, interests, or activities that may limit their daily functioning (APA 2014). Difficulty with social communication and behavior, including lack of concern or awareness, impulsivity, misinterpretation of rules, and overriding obsessions, can increase risk for criminal justice involvement (Allen et al. 2008; Mayes 2003; Woodbury-Smith et al. 2005). This situation may be complicated by a lack of training of first responders to understand and deal with these differences (Mayes 2003; Hall et al. 2007; Lerner et al. 2012; Woodbury-Smith and Dein 2014).

The few epidemiological studies to date regarding youth on the autism spectrum involved in the CJS offer conflicting findings as to whether their risk of criminal justice involvement is higher than the general population. Recent literature reviews (Mouridsen 2012; King and Murphy 2014) concluded there is still no body of evidence to support that individuals on the autism spectrum are more likely to be involved in the CJS than individuals in the general population. However, variance in ascertainment of the study populations interferes with the ability to draw conclusions.

The first large-scale prevalence study of autism and criminal justice involvement was conducted in Denmark using a sample derived from two psychiatric hospitals and concluded that adult males on the autism spectrum were less likely to be involved in the CJS than the general

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population (Mouridsen et al. 2008). However, this study also found that one in seven adult males on the autism spectrum were likely to be involved in the CJS. While this proportion might be considered low compared to the general population, it still generates alarm as a high occurrence of interaction.

The only community-based prevalence study on criminal justice involvement was done in the United Kingdom and found that the level of offending among adult males was lower in the ASD group than the non-ASD comparison group (Woodbury-Smith et al. 2006). However, a recent longitudinal population-based study in Sweden found individuals on the autism spectrum to be at a 31% higher risk of having criminal convictions than the general population (Heeramun 2015). When the data was stratified further, the authors discovered individuals on the autism spectrum with comorbid psychiatric diagnoses were at a 45% greater risk of conviction of a criminal offense than those without.

In the U.S., there have not been any studies of adults on the autism spectrum involved in the CJS—only youth. Some estimate that 4–5% of youth on the autism spectrum have been involved in the CJS (Cheely et al. 2012; Brookman-Frazee et al. 2009). While these studies have provided a starting point for understanding the prevalence of youth with autism in the CJS, these studies were referred through public service systems and are not national or population-representative.

Prior research has examined risk factors for involvement in the CJS in the general population but not specifically in ASD. Risk and protective factors can be categorized by ecological levels of influence: individual, family, peer/school, and community. At the individual level, risk factors for involvement in the CJS include externalizing behaviors and comorbid psychiatric disorders such as Attention Deficit Hyperactivity Disorder (ADHD) (Vermeiren et al. 2006; Williams et al. 2007; Greenberg and Lippold 2013). At the family level, lack of parental postsecondary education, level of parental involvement, and lower household income are known risk factors (Williams et al. 2007; Greenberg and Lippold 2013). At the peer/school level, social isolation and being a target of peer victimization put youth at potential risk of CJS involvement (Williams et al. 2007; Greenberg and Lippold 2013); while at the community level, social and community participation are protective factors (Williams et al. 2007; Greenberg and Lippold 2013).

This study examines the prevalence of involvement in the CJS for youth on the autism spectrum beginning at adolescence and in early adulthood, ages 14–15 and ages 21–22. While ASD occurs in all racial, ethnic, and socioeconomic groups, it is nearly 4.5 times more common among boys than girls (Christensen et al. 2016). Unlike previous research, this study uses non-referred, nationally representative data on transition-age youth on the autism spectrum.

We address gaps in the literature by investigating the following questions: (1) What is the prevalence of involvement in the CJS for transition-age youth on the autism spectrum and how do prevalence rates differ from the teens into the early 20s? (2) What factors are associated with involvement in the CJS? This study will provide national baseline data for tracking the progress of the involvement of young adults on the autism spectrum in the CJS over time.

Methods

Study Sample

We used secondary data from the National Longitudinal Transition Study-2 (NLTS2), which was conducted by SRI International under contract with the U.S. Department of Education. The NLTS2 is a nationally representative study of youth enrolled in special education through Local Education Agencies (LEAs) and state-supported special schools (Cameto et al. 2000). The sample is generalizable to the U.S. cohort of youth in special education who were ages 13–17 in 2000. The NLTS2 collected information from parents and youth through phone interviews and/or mail surveys every two years from 2001 to 2009. Telephone interviews with parents/guardians surveyed family characteristics, non-school activities, satisfaction with school programs, and activities after high school. Youth who were able to answer on their own completed telephone interviews about their experiences and outcomes; if the youth was not able to answer the survey, parents answered a subset of these questions. Mail questionnaires were sent to parents and youth who could not be reached by phone. The study enrolled 11,270 youth nationwide, 920 of whom were youth on the autism spectrum. Our analysis included information from all five waves of the study (every 2 years), in which youth ranged from 13–17 years old in Wave 1 to 21–25 years old at Wave 5. We limited our analysis to the 920 youth on the autism spectrum who had no missing information about CJS in Wave 1. The distribution of youth on the autism spectrum was primarily white males, between 15 and 19 years old, from middle income households, who had at least one parent with a B.A. or higher degree.

Measures and Variables

We examined two dichotomous yes/no variables to measure involvement in the CJS based on the survey questions: “Has youth ever been stopped and questioned by police, excluding a traffic violation?” and “Has youth ever been arrested?” If the respondent answered “yes” in a previous

wave, they were automatically included in the “yes” category in subsequent waves.

Independent variables included demographic characteristics (sex, age at time of interview, race, Hispanic ethnicity, parent’s highest educational attainment, total household income, and youth’s conversation ability) and risk factors for involvement in the CJS (ADD/ADHD diagnosis, peer victimization, social isolation, externalizing behaviors, level of parental involvement, and youth’s social and community participation). ADD/ADHD diagnosis was based on a parent-reported diagnosis of Attention Deficit Disorder or Attention Deficit Hyperactivity Disorder, which is a common comorbidity among individuals on the autism spectrum (Johnson and Myers 2007). Social isolation was defined as the absence of all the following in the prior 12 months: ever getting together with friends, friends ever calling on the phone, ever invited to other friend’s social activities (Orsmond et al. 2013). Externalizing behavior was measured using a scale created by summing five 3-category variables asking how often youth did the following: ended disagreements calmly, behaved at home in a way that caused problems for the family, received criticism well, controlled temper when arguing, and got into situations resulting in trouble (Shattuck et al. 2011). Peer victimization was considered if youth experienced any of the following in the past year: bullying, teasing, had things stolen from him/her, was physically attacked. Level of parental involvement was measured using a scale created by summing five binary variables addressing parent’s attendance at general school meetings, a school or class event, a parent/teacher conference, a meeting regarding youth’s IEP, or volunteering at the school. Social and community participation was coded “yes” if the youth had engaged in any of the following in the past 12 months: community/civic activities, volunteer or community service activities, or organized community or extracurricular activities.

Data Analysis

The prevalence of the CJS variables and the distribution of independent variables (demographic characteristics and risk factors) was assessed using univariate point estimates. We used bivariate logistic regression to test the significance of association between the independent variables and each dependent variable: youth was ever stopped and questioned by police, and youth was ever arrested. Multiple logistic regression was used to estimate the correlation of the independent variables on each CJS outcome for youth on the autism spectrum. All independent variables were included as controls in this model. The complex survey design of the data was taken into account, and findings were weighted to be representative of all youth ages 13–17 in 2001 who were enrolled in special education

under an autism classification. We used SRCWare Version 2.0 to create 50 sets of data with no missing values using multiple imputation (Raghuathan et al. 2001). All analyses were conducted using Stata 13.1.

Results

Table 1 reports the overall distribution of demographic characteristics and experiences for youth on the autism

Table 1 Distribution of independent variables: demographic characteristics and youth experiences (percentages or means and 95% confidence intervals)

Variables	Overall distribution
Male	83.1 (79.7–86.4)
Age at wave 2, 2003	
15	8.6 (6.2–11.0)
16	24.9 (20.3–29.5)
17	25.0 (21.0–28.9)
18	23.5 (19.6–27.4)
19	18.0 (13.8–22.2)
Race	
White	67.2 (61.4–72.9)
African–American	21.4 (16.2–26.6)
Multi/other	11.5 (7.6–15.3)
Hispanic ethnicity	10.0 (6.1–13.9)
Total household income	
Up to \$25,000	23.8 (19.1–28.5)
\$25,000–50,000	26.3 (22.0–30.7)
\$50,000–75,000	35.5 (30.8–40.3)
\$75,000+	14.4 (10.4–18.3)
Parent’s highest education attainment	
>high school	6.2 (4.1–8.3)
HS grad or GED	18.22 (14.31–22.1)
Some college	27.5 (23.4–31.6)
B.A. or higher degree	48.1 (42.9–53.3)
Conversation ability	
No trouble	13.0 (9.8–16.3)
A little of trouble	32.3 (27.6–37.1)
A lot of trouble	38.2 (33.9–42.5)
Unable to converse	16.5 (11.5–21.4)
ADD/ADHD diagnosis	31.8 (27.3–36.3)
Victimization	42.4 (37.3–47.6)
Social isolation	27.4 (22.8–32.1)
Externalizing behaviors (mean)	4.2 (4.0–4.4)
Level of parental involvement (mean)	1.8 (1.7–1.9)
Social and community participation	65.6 (60.8–70.4)

Source National Longitudinal Transition Study 2, Wave 2. Weighted to population levels. Variances adjusted for sampling method. Multiple imputed sets = 50

spectrum. Based on parent report, 31.8% of youth on the autism spectrum also had a diagnosis of ADD/ADHD. Youth experienced high rates of victimization (42.4%) and social isolation (27.4%). They also experienced high rates of social and community participation (65.6%).

Research Question 1: What is the Prevalence of Involvement in the CJS for Transition-Age Youth on the Autism Spectrum and How do Prevalence Rates Differ from the Teens into the Early 20s?

Table 2 reports the prevalence of youth at each wave of the study that were ever stopped and questioned by police and ever arrested. In Wave 1, 9.2% of youth had ever been stopped and questioned by police and 1.7% of youth had ever been arrested. By the final wave, nearly 21% of youth had ever been stopped and questioned by police and 6.7% had ever been arrested.

Table 3 examines the varying degrees of involvement in the criminal justice system for youth at the beginning of the transition years compared to youth who have exited high school. At 14–15 years old, 8.2% of youth on the autism spectrum had ever been stopped and questioned by police, but <1% of youth had ever been arrested. By age 21–22, nearly 20% had ever been stopped and questioned, and 4.7% had ever been arrested.

Research Question 2: What Factors are Associated with Involvement in the CJS?

Table 4 presents the adjusted odds ratios for independent variables that had significant bivariate association (all other variables were included in the models but not reported in the table). Females had significantly lower adjusted odds of ever being stopped and questioned by police compared to males (OR=0.23). Youth who exhibited externalizing behaviors had significantly higher adjusted odds of ever being stopped and questioned by police (OR=1.26) and ever being arrested (OR=1.73) compared to youth on the autism spectrum who did not exhibit externalizing behaviors.

Table 2 Prevalence of involvement in the criminal justice system among transition-age youth at each wave (1–5) of the NLTS2 (percentages and 95% confidence intervals)

	Wave 1% (95% CI) (^a n=880)	Wave 2% (95% CI) (n=730)	Wave 3% (95% CI) (n=600)	Wave 4% (95% CI) (n=680)	Wave 5% (95% CI) (n=660)
Age range of youth at this wave	13–17	15–19	17–21	19–23	21–25
Youth was ever stopped and questioned by police	9.2 (7.4–11.3)	13.9 (11.6–16.6)	18.2 (15.4–21.5)	19.2 (16.4–22.3)	20.9 (17.9–24.2)
Youth was ever arrested	1.7 (1.0–2.8)	3.4 (2.3–5.0)	4.2 (2.9–6.1)	4.9 (3.5–6.8)	6.7 (5.0–8.9)

Source National Longitudinal Transition Study 2, Waves 1–5. Weighted to population levels at each wave

^an is the number of participants who answered the CJI questions

Table 3 Prevalence of involvement in the criminal justice system among youth on the autism spectrum at an early high school age and an after high school age (percentages and 95% confidence intervals)

	Youth has ever been stopped and questioned by police % (95% CI)	Youth has ever been arrested % (95% CI)
Age 14–15 at time of survey	8.2 (5.6–11.8)	0.7 (0.3–1.5)
Age 21–22 at time of survey	19.5 (14.8–25.3)	4.7 (2.8–7.9)

Source National longitudinal transition study 2, Waves 1–5. Weighted to population levels. Variances adjusted for sampling method

Discussion

To the best of our knowledge, this study is the first in the U.S. to use nationally representative data to examine patterns of prevalence and correlates of involvement in the criminal justice system for transition-age youth on the autism spectrum. Overall, we found that a substantial percentage (19.5%) of youth on the autism spectrum had ever been stopped and questioned by police by the time they reached their early twenties, and nearly a quarter of those who were stopped and questioned had ever been arrested (4.7%). The arrest rates are consistent with previous research regarding youth on the autism spectrum (Cheely et al. 2012; Brookman-Frazee et al. 2009). While others have speculated that individuals on the autism spectrum who are stopped and questioned by police are less likely to be arrested, as police may recognize characteristics of autism in these youth (Cheely et al. 2012), it is concerning that one in five youth on the autism spectrum are coming into contact with law enforcement officers. Prior research has solely focused on criminal convictions for this population, and that data has presented rates as high as one in seven adult males on the autism spectrum being involved in the CJS (Mouridsen 2008). Based on our research, we can assume individuals are being stopped and questioned by law enforcement at much higher rates than convictions.

Table 4 Logistic regression models of youth on the autism spectrum ever being stopped and questioned by police and ever being arrested (adjusted odds ratios and 95% CI)

Covariates	Youth has ever been stopped and questioned by police OR (95% CI)	Youth has ever been arrested OR (95% CI)
Female	0.2 (0.1–0.6)**	0.2 (0.0–1.7)
Total household income (U.S. \$10,000 increments)	0.9 (0.8–1.0)	1.1 (0.9–1.3)
Conversation ability		
No trouble	1.0	1.0
A little trouble	1.4 (0.4–4.3)	3.4 (0.7–16.8)
A lot of trouble	0.6 (0.2–1.8)	1.0 (0.2–4.7)
Not able to at all	0.3 (0.1–1.3)	
ADD/ADHD diagnosis	1.4 (0.7–2.5)	1.4 (0.6–3.7)
Externalizing behaviors	1.3 (1.1–1.4)**	1.7 (1.3–2.3)***

Source National Longitudinal Transition Study 2, Wave 2. Weighted to population levels. Variances adjusted for sampling method. Multiple imputed sets = 50

Controlling for: age, ethnicity, race, parent's highest educational attainment, victimization, social isolation, level of parental involvement, social & community participation

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A recent study surveyed the experiences of individuals on the autism spectrum and police in England and Wales (Crane et al. 2016). After surveying nearly 400 police officials and 80 members of the ASD community, the results showed conflicting views on the quality of the interaction. Overall, the police sample was satisfied with how they worked with individuals on the autism spectrum, while the ASD community sample was generally dissatisfied with how police interactions were handled. It is important to use these recent finding to engage law enforcement officials to increase training on ASD. It is equally as important to address the possibility of police interactions before they occur among the ASD community in the hopes to prevent a negative experience.

We also found that nearly half of those who were ever stopped and questioned by police had experienced this by the time they reached 15 years of age. We speculate that these experiences may coincide with increases in independence in the community at this age. Declining levels of supervision might increase opportunities for encounters with law enforcement. Within our communities, creating awareness and dialogue is necessary to the successful integration of individuals on the autism spectrum.

Correlates of involvement in the CJS were measured at Wave 2 of the study since the majority of reported involvement in the CJS occurred by that time frame. Gender and externalizing behaviors were the only significant correlates of involvement in the CJS among transition-age youth after controlling for covariates. Female youth on the autism spectrum were less likely to experience being stopped and questioned than male youth on the autism spectrum. Youth exhibiting externalizing behaviors were more likely to be stopped and questioned by police or arrested compared to

youth who did not have externalizing behaviors. This is consistent with the broader body of research on risk factors for youth involvement with the CJS (Williams et al. 2007; Greenberg and Lippold 2013). In the general population, externalizing behaviors increase the risk of CJS involvement in the presence of situational and contextual factors such as depression, drug use, or exposure to community or family violence (Williams et al. 2007). Whether this same mechanism accounts for elevated risk among youth on the autism spectrum who have externalizing behaviors is an area for future research.

This study had several limitations. The NLTS2 is based on parent and youth self-report, which could create underestimation of the prevalence of involvement in the CJS due to social desirability bias and recall bias. However, people are often more forthcoming about stigmatized issues in interviews conducted over the phone or mail, thus possibly reducing these biases (Bowling 2005; Trier-Bieniek 2012). The data used in this analysis was collected from 2001 to 2009, and the true population rates may have shifted since 2009. Finally, we were not able to examine causality. However, our research generates hypotheses about risk or preventative factors that could impact future research, interventions, and law enforcement training.

Our study had several important strengths. Use of a nationally representative survey of a non-institutionalized population of youth in special education increased the external validity of our study. Most published studies conducted in the U.S. have utilized referred populations through the juvenile justice system. Another strength is the range of variables available through the NLTS2, which allowed us to examine individual characteristics such as

co-occurring conditions—like ADHD, impairment severity, and detailed parent information.

The use of population indicators provide insight regarding the scope and magnitude of problems like involvement in the CJS, and are important for efforts to “move the needle” on outcomes for youth on the autism spectrum. Yet, additional indicators are necessary to know whether we have the resources needed to address involvement in the CJS, and ultimately improve the quality of life for youth on the autism spectrum.

As the prevalence of autism rises, so does the number of young adults transitioning into adulthood. More research is needed to identify what puts these individuals at risk of police contact. Since a large amount of the occurrences take place in the early teenage years, it may be helpful to implement school-based interventions for youth on the autism spectrum to reduce misconceptions and increase effective communication when youth interact with law enforcement officials. Additionally, we need research that can lead to strategies that will help law enforcement better recognize and manage encounters with youth on the autism spectrum.

Author Contributions JAR conceived of the study, participated in its design and coordination, performed statistical analysis and interpretation of the data, and drafted the manuscript; PS conceived the study, participated in the design and coordination of the data, and helped draft the manuscript; JER participated in the design of the study, performed statistical analysis and helped draft the manuscript; AR participated in the design and coordination of the study and helped to draft the manuscript. All authors read and approved the final manuscript.

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Compliance with Ethical Standards

Conflict of interest Julianna Rava declares that she has no conflict of interest. Paul Shattuck declares that he has no conflict of interest. Jessica Rast declares that she has no conflict of interest. Anne Roux declares that she has no conflict of interest.

Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

References

- Allen, D., Evans, C., Hider, A., Hawkins, S., Peckett, H., & Morgan, H. (2008). Offending behaviour in adults with asperger syndrome. *Journal of Autism and Developmental Disorders*, 38(4), 748–758. doi:10.1007/s10803-007-0442-9.
- American Psychiatric Association [APA]. (2014). Autism spectrum disorders. Retrieved December 1, 2014, from <http://www.psychiatry.org/mental-health/autism-spectrum-disorders>.
- Bowling, A. (2005). Mode of questionnaire administration can have serious effects on data quality. *Journal of Public Health*, 27(3), 281–291.
- Brookman-Frazer, L., Baker-Ericzén, M., Stahmer, A., Mandell, D., Haine, R. A., & Hough, R. L. (2009). Involvement of youths with autism spectrum disorders or intellectual disabilities in multiple public service systems. *Journal of Mental Health Research in Intellectual Disabilities*, 2(3), 201–219. doi:10.1080/19315860902741542.
- Cameto, R., Wagner, M., Newman, L., Blackorby, J., & Javitz, H. (2000). *National longitudinal transition study II (NLTS2)—sampling plan*. Retrieved from http://nlts2.org/studymeth/nlts2_sampling_plan2.pdf.
- Cashin, A. R., & Newman, C. R. (2009). Autism in the criminal justice detention system: A review of the literature. *Journal of Forensic Nursing June 2009*, 5(2), 70–75. doi:10.1111/j.1939-3938.2009.01037.x.
- Cheely, C. A., Carpenter, L. A., Letourneau, E. J., Nicholas, J. S., Charles, J., & King, L. B. (2012). The prevalence of youth with autism spectrum disorders in the criminal justice system. *Journal of Autism and Developmental Disorders*, 42(9), 1856–1862. doi:10.1007/s10803-011-1427-2.
- Christensen, D., Baio, J., Van Naarden Braun, K., et al. (2016). Prevalence and characteristics of autism spectrum disorder among children aged 8 years—autism and developmental disabilities monitoring network, 11 sites, United States, 2012. *MMWR Surveillance Summaries 2016*, 65(3):1–23.
- Crane, L., Maras, K. L., Hawken, T., Mulcahy, S., & Memon, A. (2016). Experiences of autism spectrum disorder and policing in England and Wales: Surveying police and the autism community. *Journal of Autism And Developmental Disorders*, 46(6), 2028–2041.
- Greenberg, M. T., & Lippold, M. A. (2013). Promoting healthy outcomes among youth with multiple risks: Innovative approaches. *Annual Review Public Health*, 34, 253–270.
- Hall, A. V., Godwin, M., Wright, H. H., & Abramson, R. K. (2007). Criminal justice issues and autistic disorder. *Growing up with Autism: Working with School Age Children and Adolescents*, 272–292.
- Heeramun, R., Magnusson, C., Gumpert, C. H., et al. (2015). Autism spectrum disorders and criminal convictions: The role of psychiatric comorbidity. In C. Kerns (Ed.), *Co-Occurring psychiatric disorders and the lifecourse in ASD: Clinical and epidemiological perspectives*. Panel conducted at the International Meeting for Autism Research, Salt Lake City, UT.
- Howlin, P. (2004). *Autism and asperger syndrome: Preparing for adulthood*. London: Routledge.
- Johnson, C. P., & Myers, S. M. (2007). Identification and evaluation of children with autism spectrum disorders. *Pediatrics*, 120(5), 1183–1215.
- King, C., & Murphy, G. H. (2014). A systematic review of people with autism spectrum disorder and the criminal justice system. *Journal of Autism And Developmental Disorders*, 44(11), 2717–2733.
- Lerner, M. D., Haque, O. S., Northrup, E. C., Lawer, L., & Bursztajn, H. J. (2012). Emerging perspectives on adolescents and young adults with high-functioning autism spectrum disorders, violence, and criminal law. *Journal of the American Academy of Psychiatry and the Law Online*, 40(2), 177–190.
- Mayes, T. A. (2003). Persons with autism and criminal justice core concepts and leading cases. *Journal of Positive Behavior Interventions*, 5(2), 92–100.
- Mouridsen, S. E. (2012). Current status of research on autism spectrum disorders and offending. *Research in Autism Spectrum Disorders*, 6(1), 79–86. doi:10.1016/j.rasd.2011.09.003.
- Mouridsen, S. E., Rich, B., Isager, T., & Nedergaard, N. J. (2008). Pervasive developmental disorders and criminal behaviour. A case control study. *International Journal of Offender Therapy and Comparative Criminology*, 52, 196–205.

- Orsmond, G. I., Shattuck, P. T., Cooper, B. P., Sterzing, P. R., & Anderson, K. A. (2013). Social participation among young adults with an autism spectrum disorder. *Journal of Autism and Developmental Disorders*, *43*(11), 2710–2719.
- Raghunathan, T. E., Lepkowski, J. M., Van Hoewyk, J., & Solenberger, P. (2001). A multivariate technique for multiply imputing missing values using a sequence of regression models. *Survey Methodology*, *27*(1), 85–96.
- Shattuck, P. T., Orsmond, G. I., Wagner, M., & Cooper, B. P. (2011). Participation in social activities among adolescents with an autism spectrum disorder. *PLoS One*, *6*(11), e27176. doi:10.1371/journal.pone.0027176.
- Shattuck, P. T., Roux, A. M., Hudson, L. E., Taylor, J. L., Maenner, M. J., & Trani, J. F. (2012). Services for adults with an autism spectrum disorder. *Canadian Journal of Psychiatry*, *57*(5), 284.
- Trier-Bieniek, A. (2012). Framing the telephone interview as a participant-centred tool for qualitative research: A methodological discussion. *Qualitative Research*. doi:10.1177/1468794112439005.
- Vermeiren, R., Jaspers, I., & Moffitt, T. (2006). Mental health problems in juvenile justice populations. *Child and Adolescent Psychiatric Clinics of North America*, *15*(2), 333–351.
- Williams, K., Rivera, L., Neighbours, R., & Reznik, V. (2007). Youth violence prevention comes of age: Research, training and future directions. *Annual Review of Public Health*, *28*, 195–211.
- Woodbury-Smith, M., & Dein, K. (2014). Autism spectrum disorder (ASD) and unlawful behaviour: Where do we go from here? *Journal of Autism and Developmental Disorders*, *44*(11), 2734–2741.
- Woodbury-Smith, M. R., Clare, I. C. H., Holland, A. J., & Kearns, A. (2006). High functioning autistic spectrum disorders, offending and other law-breaking: Findings from a community sample. *The Journal of Forensic Psychiatry & Psychology*, *17*(1), 108–120.
- Woodbury-Smith, M. R., Clare, I. C. H., Holland, A. J., Kearns, A., Staufenberg, E., & Watson, P. (2005). A case-control study of offenders with high functioning autism spectrum disorders. *The Journal of Forensic Psychiatry & Psychology*, *16*(4), 747–763.