

Police Cadet Perceptions on the Use of Identification Cards for Persons with Autism Spectrum
Disorder (ASD)

Andrew S. Denney, Ph.D.

The University of Tennessee at Chattanooga

Allen Copenhaver, Ph.D.

Eastern Kentucky University

Victoria Rapp, M.S.

University of Miami

Abstract

The purpose of this study is to ascertain the impact of law enforcement cadets' general and practical knowledge on favorability towards the use of special identification for persons with Autism Spectrum Disorder (ASD). A total of 341 law enforcement cadets were sampled across ten law enforcement cadet classes. Three ordinary least squares (OLS) regression models were used to predict changes in cadet favorability towards persons with ASD carrying special identification when examining (1) only the general knowledge of autism scale, (2) only the practical knowledge of autism scale, and (3) both the general and practical autism of autism knowledge scales. Findings show that an increase in general knowledge, an increase in practical knowledge, and an increase in both general and practical knowledge lead to increased favorability of special identification cards for persons with ASD among law enforcement cadets. This is the first empirical study to examine law enforcement and their favorability towards special identification for persons with ASD. As such, this study has the potential to make a strong impact on the growing body of literature on law enforcement and interactions with persons with ASD.

Keywords: Police cadets, Autism spectrum disorder, Autism special identification, Law enforcement, Law enforcement attitudes

Introduction

Autism Spectrum Disorder (ASD), commonly called autism, is an often-misunderstood developmental disorder that can present challenges for law enforcement. Issues that law enforcement commonly faces in their interactions with ASD persons are agitation, escalation to physical force, and even death. Estimates on how many individuals have ASD in the US vary. Such estimates have placed the number of adults with ASD at 3.5 million (Buescher et al., 2014) to as high as 5.4 million (Centers for Disease Control, 2022). However, the total number of persons diagnosed with ASD is increasing with each passing year. For example, in 2018, the CDC estimated that 1 in 59 children have ASD, a 15% increase over the prior estimate from 2016 (Autism Speaks, 2018a). The most recent estimate from 2020 data by the Center for Disease Control and Prevention is that 1 in 36 children now have ASD (CDC, 2023). Approximately 50,000 additional individuals with ASD are expected to enter adulthood over the next ten years (Autism Speaks, 2018b). The combination of learning more about ASD and increasing diagnoses means that law enforcement interactions with persons who have ASD will only increase in the coming years. Unfortunately, there have been many high-profile cases of law enforcement interactions with persons with ASD that have escalated to death (see Bartley, 2006; Chown, 2010).

Research examining ASD persons' and their interactions with the criminal justice system, particularly with law enforcement, has increased in momentum in recent years (see Calton & Hall, 2022; Cooper et al., 2022; Copenhaver et al., 2020; Miller et al., 2022; Railey et al., 2020). Examination of ASD persons and their interactions with law enforcement is imperative as autism symptoms (e.g., impaired communication, deficient social skills, repetitive behaviors, psychiatric

comorbidity,¹ etc.) can lead to increased interaction with law enforcement. ASD symptoms, such as repetitive behaviors, could be interpreted as ‘furtive movements,’ a common requirement to initiate stop-and-frisks. Consequently, sensory issues related to being detained (e.g., cold metal from handcuffs, touching, etc.) can escalate such situations to violence.

There are two goals to the present study. The first goal is to ascertain how cadet *general knowledge* of ASD impacts favorability towards using special identification cards for ASD persons. The second goal is to examine the role that *practical knowledge* of ASD plays in the favorability of using special identification cards for ASD persons. Future directions for research that examine police training and interactions with ASD persons and relevant policy implications will also be discussed.

Literature Review

ASD: An Overview

ASD is classified as a developmental disorder of the brain (Centers for Disease Control and Prevention, 2019). This developmental disorder usually impacts a person’s ability to communicate in addition to serious behavioral effects (e.g., regulating temper, repetitive behaviors, obsessive interests, etc.) (Centers for Disease Control and Prevention, 2019). Additional symptoms can include but are not limited to the following: difficulty functioning in routine settings (National Institute of Mental Health, n.d.), hyperactivity, aggression, self-injurious behavior (Centers for Disease Control and Prevention, 2019), meltdowns (National Autistic Society, 2018), and intellectual disabilities (Car Autism Roadmap, 2016), among others. It is important to remember that autism is an idiosyncratic developmental disorder, meaning that

¹ *Comorbidity* refers to one or more diagnoses of separate or related disorders.

symptoms may appear (or not at all) differently from one person to the next (International Board of Credentialing and Continuing Education Standards, 2017).

The above symptoms associated with ASD can prove problematic for law enforcement officers (LEOs) in multiple ways. One common way that LEOs interact with ASD persons can prove difficult is through the communication issues described above. For example, a LEO may not be able to conduct a routine traffic stop as the ASD person may be nonverbal (Stone et al., 1997), and may have difficulty understanding law enforcement commands or nuanced linguistic expressions or facial cues (Denworth, 2018), may not make eye contact, or experience a number of other communication issues that can escalate the situation. ASD persons can also stop communicating once a LEO asks questions (Reyes & Reyes, 2018). Another communication barrier that can manifest is *echolalia* (Vicker, 2019). Echolalia is where people with ASD repeat the words that are being spoken to them, thus potentially furthering the difficulty of the interaction.

There are a variety of typical behaviors of persons with ASD that may further a LEOs suspicion of wrongdoing. According to Autism Speaks (2019), some of these behaviors that could be interpreted as suspicious include avoiding eye contact, not having a complete sense of the dangerousness of the situation, ignoring commands, fear of persons in uniform, and stimming. Stimming is a name given to the process of a person with ASD repeating a behavior to calm themselves down from being overstimulated. Common behaviors associated with stimming include humming, rocking back and forth, twirling an object of choice, or a combination of such behaviors (Harris, 2019). Stimming could also easily be misinterpreted as a ‘furtive movement,’ which gives LEOs impetus to conduct a stop-and-frisk search with most departmental policies.

Engaging in physical touch or the cold metal of the handcuffs (if detained) can further escalate the situation.

Since ASD is often related to sensory processing disorders, becoming overstimulated (such as in a routine stop), the situation can result in the person having a *meltdown*. A meltdown is a term given to the process in which a person with ASD becomes so overwhelmed by a situation that they cannot control themselves physically or verbally (National Autistic Society, 2017). A 2019 study in Canada found that the primary reason for the escalation in police contacts to aggression or violence with persons who have ASD mainly was the result of meltdowns (Salerno & Schuller, 2019). Furthermore, Salerno and Schuller (2019) found that nearly half (42.3%) of their sample of ASD persons had some form of physical force used against them in their interactions with LEOs. A total of 36.4% of such interactions resulted in their being restrained or handcuffed (Salerno & Schuller, 2019).

ASD Contact with LEOs

Estimates have placed the total number of LEO contacts with the public (16 years of age and above) at 53.5 million people per year (Davis et al., 2018). With between 3.5 and 8.9 million persons suspected of having ASD in the US and 1 in 36 children now being diagnosed with ASD, this number of interactions between LEOs and ASD persons is likely sizeable.

Though challenging to ascertain, there have been a few studies that have examined the interactions between LEOs and persons with ASD. Rava et al. (2017) found that among the youth sampled, 20% had been stopped by LEOs for questioning with 5% being arrested prior to turning 21. Though dated, Curry et al. (1993) found that persons with ASD are seven times more likely to have contact with the police when compared to persons without autism.

In a 2019 study, Copenhaver and Tewksbury found that between 2000 and 2016, there were 347 media accounts detailing interactions between persons with ASD and LEOs. The reasons reported for such interactions included confrontations with LEOs, running away from home or their caregivers, and being the victim of a crime (Copenhaver & Tewksbury, 2019). Among these interactions, most (168) were for an autistic person who went missing, while 96 were from an autistic person being the victim of a crime (Copenhaver & Tewksbury, 2019).

Salerno and Schuller (2019) in their Canadian study on ASD and LEO interactions found the most common reason for interactions between law enforcement and autistic persons to be aggression or violence (20%), followed by accused of committing a crime (16%), witnessing a crime (12%), missing persons (8%), being in distress (8%), victim (8%), domestic dispute (8%), engaging-in illegal non-violent activity (4%) (Salerno & Schuller, 2019).

In a study on people with ASD and their experiences with law enforcement, Calton and Hall (2022) found in their sample of five individuals that police had stopped four. Moreover, all individuals reported not fully understanding the interaction and experiencing negative emotions (Calton & Hall, 2022). Such evidence of interactions that can ultimately result in aggression and violence further underscores the need for continued LEO training.

In a 2022 study on the experiences of autistic persons and their caregivers with criminal justice system interactions, Miller et al. (2022) found that 39.1% of their sample of autistic individuals had an interaction with the criminal justice system, while 23.6% of caregivers did. A total of 9% reported a negative perception of the criminal justice system, 8% reported a positive perception, and 1.5% reported concern for a future interaction with the criminal justice system.

Lastly, Wallace et al. (2020) found in their study on interactions between autistic persons and the police a variety of concerns expressed by parents, caregivers, and other interested parties.

Specifically, Wallace et al. (2020) found that 30.1% cited misunderstanding of ASD as being a primary reason for their fear in interactions with LEOs, 34% referenced communication issues, and 60% reported being fearful of future LEO contact.

LEO Training & ASD

The need for continued training for LEOs on their ability to recognize and interact with autistic persons has been well documented (Crane et al., 2016; Rava et al., 2017; Railey et al., 2020). Crane et al. (2016) found that 80% of the officers examined in their study believed that ASD training was beneficial. However, Eadens et al. (2015) examined 188 LEOs in three southeastern US police districts, finding that most (84.1%) had little to no training on persons with intellectual disabilities.

Though the decentralization of US law enforcement has many positives, one of the drawbacks is the lack of unified and consistent training, especially regarding persons with ASD. One training option is Crisis Intervention Training (CIT), which has existed in the US since the mid-1980s (National Alliance on Mental Illness, 2018). CIT programs are typically used to help officers de-escalate situations with ASD persons (National Alliance on Mental Illness, 2018). However, it is important to note that CIT training is typically used for those with mental illnesses while ASD is a developmental disability. In 2015, CIT ECHO was created to address many of the earlier limitations of CIT (Crisanti et al., 2018). CIT ECHO provides LEOs with knowledge on de-escalation tactics for individual situations so that a routine interaction does not result in aggression or violence (Crisanti et al., 2018).

Maryland has been at the forefront of LEO training with people with ASD and other developmental disorders. Specifically, Maryland developed the Ethan Saylor Alliance (Anderson, 2019) to provide real-world scenario training involving volunteers with

developmental disorders. This approach allows LEOs to interact with persons with developmental disabilities instead of just being presented with information through a typical training demonstration (Anderson, 2019). Johns Hopkins All Children's Hospital in Florida has also developed a unique training that allows LEOs to simulate real-life scenarios, moving beyond mere demonstration (Manning, 2019).

Continued training for LEOs is imperative since many officers do not have the training necessary to interact and de-escalate potentially volatile interactions with ASD persons. Prior studies have found that LEOs commonly lack the necessary knowledge to identify persons with disabilities (Eadens et al., 2015) and to respond appropriately (Chown, 2010). Copenhaver et al. (2020) found that police cadets who have less overall knowledge pertaining to ASD have a false sense of confidence in identifying ASD persons. Bailey et al. (2001) found that increased training can improve officer attitudes towards those with disabilities and disorders. Beyond training, one proposition by many is to have ASD persons carry an identification card that can inform an LEO of the person's developmental disability.

ASD Identification Cards

In recent years, some states have passed laws allowing persons with ASD to receive a state-issued identification card (usually through their respective Department of Health). For example, Alabama passed a law (Act 2014-344), allowing the Alabama Department of Public Health to issue an identification card that discloses a person's certified ASD status. The card states the following information:

I have been medically diagnosed with autism spectrum disorder. My medical condition impairs my ability to communicate with others. As a result I may have difficulty understanding your directions, and I may not be able to respond to your questions. I may also become physically agitated if you touch me or move too close to me. Please do not interpret my behaviors as refusal to cooperate. I am not intentionally defying your

instructions. If I exhibit any of these behaviors, I request that you contact the person noted below on my behalf; s/he will confirm my diagnosis and provide information you may need about my identity (Alabama Department of Public Health, 2022).

Other states (e.g., New York, New Jersey, Louisiana,) have adopted similar practices and measures where ASD persons and their guardians can request special identification after receiving documentation from medical professionals. It is important to emphasize that such programs are currently optional.

Whether the public and LEO communities support the practice of special identification cards is not clear. In a review of the literature, only one prior study was located on public attitudes toward ASD identification card programs. Specifically, Davis (2021) found in an analysis of 570 Facebook comments on ASD-related pages that just over 71% of comments were *moderately positive* or *very positive* towards such identification programs. Some legal questions related to this practice also exist. It is one item if a person with ASD voluntarily discloses their condition, while it is another legal matter with the Health Insurance Portability and Accountability Act (1996) to mandate such disclosure. To date, no special identification programs mandate disclosure, though HIPPA does allow for disclosure of ASD and other conditions to law enforcement and other public officials in more advanced stages of an investigation or safety matter, such as in a missing person case or there is an immediate safety issue (US Department of Health and Human Services, n.d.).

It is clear through the literature review presented above that there are substantial gaps in research regarding interactions, training, and other vital information related to persons with ASD and LEOs. This further study is even more imperative when one considers cases such as Christopher Kramer, who was an 18-year-old man with ASD who stopped to tie his shoes in the front yard of a Missouri State Highway Patrol trooper in 2017 (Margolies, 2017). After Kramer

ran, the pursuing officers used batons and stun guns to subdue him. In another example, a 14-year-old boy in Arizona who had ASD was stimming in a public park (Helsel, 2017), and the responding officer believed the boy was under the influence of inhalants because of his hand movements (Helsel, 2017). Even though the boy informed the officer that he was stimming, the officer held him to the ground for two minutes until the boy's guardian arrived (Helsel, 2017). Such interactions are likely to continue with the additional 500,000 individuals diagnosed with ASD transitioning into adulthood over the next approximate decade (Autism Speaks, 2018b), further underscoring the need for continued examination of persons with ASD and their interactions with LEOs.

The Present Study

With both the increased understanding and diagnoses of ASD, law enforcement must continue training to recognize signs and behaviors associated with ASD. Moreover, exploration of programs and support for programs, such as special identification cards for persons with ASD, must continue. Currently, there are believed to be 2,000,000 LEOs in the US with an anticipated growth of 7% by 2026 (Bureau of Labor Statistics, 2019). This increase with the documented rise in diagnoses of ASD places a high likelihood of increased interactions between LEOs and ASD persons. Understanding how training on ASD can impact the viewpoints of LEOs is imperative to understanding the impact of training, support for various initiatives, and other vital information. The present study has two goals. The first goal is to ascertain how law enforcement cadets' *general knowledge* of ASD impacts favorability towards using special identification cards for ASD persons. The second goal is to examine the role that *practical knowledge* of ASD plays in the favorability of using special identification cards for ASD persons. Policy implications and future directions for research will also be discussed.

Methods

Data

Data used in this study were collected from a survey of all law enforcement recruits who trained at one southern state's² law enforcement cadet training program from December 2015 to August 2018. All law enforcement recruits in this state must complete a 928-hour physical and classroom-style law enforcement training program. Data comes from 10 law enforcement recruit classes that went through this training program. Upon entering their first training class, recruits were given the survey and the study preamble. Each recruit was asked to respond to questions on demographic characteristics, job training, their confidence in their ability to identify and interact with persons on the autism spectrum, their general knowledge of ASD and practical knowledge of how to respond to persons with ASD, and their attitudes towards persons with ASD carrying condition-identifying identification. The state's law enforcement cadet training program approved the study, as did the second author's former Institutional Review Board (IRB)³.

Sample and Sampling Procedure

The sample is based on a total of 341 recruits who went through the state's law enforcement training program. The second author worked with the state's training academy administration to ensure that surveys would be distributed to each class that went through the training program. The researcher and training administration agreed that roughly ten classes of cadets would give the researchers enough data upon the last class having gone through the training academy. The original goal was at least 300 study participants. Neither the researcher nor the training administration knew exactly how many participants would be in each class at the

² The state cannot be identified in order to maintain the confidentiality of study participants.

³ IRB approval was given by the University of Louisville (15.0890; Reference #: 505984).

onset of the study. Although the original goal was 300 participants, the final sample size was 341.

Dependent Measure

Three different models were included in the analysis to predict cadet favorability toward condition-identifying identification for persons with ASD. Each model includes independent variables to predict the consistent dependent variable, *favorability towards condition-identifying identification for persons with ASD*. The three different models included are 1) Favorability towards ASD identification (with general knowledge of ASD as a predictor); 2) Favorability towards ASD identification (with practical knowledge of ASD as a predictor); and 3) Favorability towards ASD identification (with general and practical knowledge of ASD as predictors). All three models included *favorability towards condition-identifying identification for persons with ASD*, measured as [0 (strongly disagree) to 10 (strongly agree)] as the dependent measure.

Independent Measures

Several independent measures were included to gauge their associations with the dependent variable of interest. First, *sex* was measured as (1=male; 0=female). Next, the average age of the sample was 26.61 years of age. Next, 76.5% (n=261) of participants *have college experience*, meaning they have taken at least one college class. Conversely, 23.5% (n=80) have not taken a college class.

Cadets were asked the question: *Have you received any sort of training (whether during basic training or additional in-service training) that gave you knowledge about (ASD) and/or how to identify individuals with ASD?* (1=Yes; 0=No) to measure whether cadets *have received any sort of training about ASD*. In total, 9% of cadets indicated they had received such training.

Next, cadets were asked: *Have you received any sort of training related to crisis intervention for those individuals with developmental disabilities and/or mental health issues?* (1=Yes; 0=No) to measure whether cadets *have received CIT training*. A total of 22% of cadets responded that they had received such training.

Cadets were also asked to gauge their *confidence to identify autistic persons* and *confidence to interact with autistic individuals* with answers to the respective questions: 1) *I am confident in my abilities to identify persons with ASD* (1=fully disagree, 2=mostly disagree, 3=somewhat disagree, 4=somewhat agree, 5=mostly agree, 6=fully agree) and 2) *I am confident in my abilities to interact with persons affected by ASD* (1=fully disagree, 2=mostly disagree, 3=somewhat disagree, 4=somewhat agree, 5=mostly agree, 6=fully agree). Cadets scored a mean score of 3.55 on the *confidence to identify autistic individuals* measure and an average score of 86 (logged)⁴ on the *confidence to interact with autistic individuals*' measure.

Cadets' scores on the modified *general autism knowledge scale*⁵ were assessed. Cadets scored an average of 34.4, while cadet scores ranged from 16 to 58. Finally, cadets were scored on the *practical law enforcement autism knowledge scale*, which was created by Copenhaver *et al.* (2020) to assess cadets' practical, "on-the-job" knowledge for responding to situations involving persons on the autism spectrum. Cadets showed an average of 45.19, while scores ranged from 17 to 60.

Analysis

Statistical Package for the Social Sciences (SPSS) Version 24 was used to compute data analysis.

⁴ The *confidence to interact with autistic individuals* measure was logged to control for skew.

⁵ See Copenhaver *et al.* (2020) for specifics on how the modified *general autism knowledge scale* was created from Stone's (1987) Autism Survey.

Findings

Table 1 below shows the demographic results of cadets included in the sample.

Table 1. Cadet Demographic Characteristics.

Measure	Mean	Standard Deviation	Min	Max
Demographics	-	-	-	
Sex	.918	-	-	-
Age	26.61	5.9	21	64
Education	76.5	-	-	-
Received Autism Training	.09	-	-	-
Received Crisis Intervention Training	.22	-	-	-
Confidence in Identifying Autism	3.55	1.32	1	6
Confidence to Interact with Autistic Individuals ⁶	.86	.54	0	1.79
Autism Knowledge Scale ⁷	34.40	7.91	16	58
Practical Autism Knowledge Scale ⁸	45.19	8.72	17	60
Favorability Towards Persons with ASD Carrying Condition-Identifying Identification	6.91	3.06	0	10

Model 1

⁶ Term was logged to control for skew.

⁷ Cronbach's Alpha = .710

⁸ Cronbach's Alpha = .893

Table 2 presents the Model 1 OLS regression results of predicting cadet favorability towards persons with ASD carrying condition-identifying identification while using *general autism knowledge* as a predictor but not *practical law enforcement autism knowledge*. Two predictors were identified as significant. First, a cadet's confidence in their ability to identify autistic persons predicts favorability towards persons with ASD carrying condition-identifying identification ($b=.351$; $Beta=.226$). That is, cadets with more confidence in their ability to identify autistic persons scored higher on favorability towards autistic persons carrying condition-identifying identification. Second, a cadet's confidence in their ability to interact with persons on the autism spectrum is predictive of favorability towards autistic persons carrying condition-specific identification ($b=.759$; $B=.186$), as cadets who are more confident in their ability to interact with autistic persons score higher on favorability towards autistic persons carrying condition-identifying identification.

Table 2. Predicting Cadet Favorability Towards Persons with ASD Carrying Condition-Identifying Identification (Using *General Autism Knowledge*) as a Predictor)⁹

Measure	B ¹⁰	S.E.	Beta	Tolerance
Sex (male)	-.933	.854	-.089	.866
Age	-.048	.028	-.138	.913
Education	-.116	.399	-.022	.966
Confidence in Identifying Autism	.351*	.146	.226	.650

⁹ N = 162

¹⁰ * Indicates coefficients sufficient at the $p < .05$ level

Confidence to Interact with Autistic Individuals ¹¹	.759*	.372	.186	.697
Received Autism Training	-.830	.867	- .085	.725
Received Crisis Intervention Training	-.508	.487	- .090	.780
General Autism Knowledge	-.022	.022	- .082	.859
(Constant)	8.222	1.723	-	-
F	9.005*	-	-	-
R-squared	0.114	-	-	-

Model 2

Table 3 below presents the Model 2 results of OLS regression for the model predicting favorability towards autistic persons carrying condition-identifying identification using practical autism law enforcement knowledge as a predictor. Three measures were significant predictors of favorability towards autistic persons carrying condition-identifying identification. First, a cadet's confidence in their ability to identify autistic persons is predictive of favorability towards persons with ASD carrying condition-identifying identification ($b=.289$; $\text{Beta}=.185$). That is, cadets with more confidence in their ability to identify autistic persons scored higher on favorability towards autistic persons carrying condition-identifying identification. Second, a cadet's confidence in their ability to interact with persons on the autism spectrum predicts favorability towards autistic persons carrying condition-specific identification ($b=.882$; $B=.210$).

¹¹ Term was logged to control for skew.

This finding means cadets who are more confident in their ability to interact with autistic persons score higher on favorability towards autistic persons carrying condition-identifying identification. Third, cadets' practical law enforcement knowledge predicts favorability towards autistic persons carrying condition-identifying identification (b=.132; B=.542), as cadets who scored higher on practical knowledge scored higher on favorability towards autistic persons carrying condition-identifying identification.

Table 3. Predicting Cadet Favorability Towards Persons with ASD Carrying Condition-Identifying Identification (Using *Practical Law Enforcement Autism Knowledge*) as a Predictor)¹²

Measure	B ¹³	S.E.	Beta	Tolerance
Sex (male)	-.443	.661	-.045	.853
Age	-.045	.024	-.116	.947
Education	-.405	.335	-.077	.944
Confidence in Identifying Autism	.289*	.120	.185	.650
Confidence to Interact with Autistic Individuals ¹⁴	.882**	.323	.210	.643
Received Autism Training	-.924	.645	-.108	.662
Received Crisis Intervention Training	-.356	.438	-.059	.715
Practical Law Enforcement Autism Knowledge	.132**	.016	.542	.903

¹² n = 178

¹³ * Indicates coefficients sufficient at the p < .05 level; **Indicates coefficients sufficient at the p<01 level.

¹⁴ Term was logged to control for skew.

(Constant)	1.531	1.495	-	-
F	33.951**	-	-	-
R-squared	0.361	-	-	-

Model 3

Table 4 below presents the results of the OLS model using the cadet's general knowledge of autism and practical law enforcement autism knowledge as predictors of cadet favorability towards autistic persons carrying condition-identifying identification. Three measures were significant predictors of favorability towards autistic persons carrying condition-identifying identification. First, a cadet's confidence in their ability to identify autistic persons predicts favorability towards persons with ASD carrying condition-identifying identification ($b=.337$; $Beta=.224$). Cadets with more confidence in their ability to identify autistic persons scored higher on favorability towards autistic persons carrying condition-identifying identification.

Second, a cadet's confidence in their ability to interact with persons on the autism spectrum is predictive of favorability towards autistic persons carrying condition-specific identification ($b=.916$; $B=.220$). Specifically, cadets who are more confident in their ability to interact with autistic persons score higher on favorability towards autistic persons carrying condition-identifying identification. Third, cadets' practical law enforcement knowledge predicts favorability towards autistic persons carrying condition-identifying identification ($b=.137$; $B=.568$), as cadets who scored higher on practical knowledge scored higher on favorability towards autistic persons carrying condition-identifying identification.

Table 4. Predicting Cadet Favorability Towards Persons with ASD Carrying Condition-Identifying Identification (Using *General Autism Knowledge and Practical Law Enforcement Autism Knowledge*) as a Predictor)¹⁵

Measure	B ¹⁶	S.E.	Beta	Tolerance
Sex (male)	-.537	.613	-.062	.841
Age	-.044	.025	-.117	.933
Education	-.359	.364	-.066	.933
Confidence to Identify Autism	.337**	.124	.224	.626
Confidence to Interact with Autistic Individuals ¹⁷	.916**	.337	.220	.646
Received Autism Training	-.986	.678	-.114	.688
Received Crisis Intervention Training	-.124	.445	-.021	.744
Practical Law Enforcement Autism Knowledge	.137**	.018	.568	.799
General Autism Knowledge	.018	.019	.071	.752
(Constant)	.463	1.776	-	-
F	27.316**	-	-	-
R-squared	0.388	-	-	-

¹⁵ N = 155

¹⁶ * Indicates coefficients sufficient at the $p < .05$ level; **Indicates coefficients sufficient at the $p < .01$ level.

¹⁷ Term was logged to control for skew.

Discussion

The purpose of this paper was to examine what roles the general and practical knowledge of ASD among cadets has upon their favorability towards using of formal identification. Using OLS regression, we found that both general and practical knowledge of ASD among cadets is critical to understanding increased levels of favorability for unique identification of persons with ASD. Specifically, increased confidence in one's ability to identify autistic persons led to greater favorability of individuals carrying condition-identifying identification. This increased favorability also held for those with greater confidence in their ability to interact with persons on the autism spectrum, regardless of the model.

Prior research examining cadets' (Copenhaver et al., 2020) and law enforcement officers' (Modell & Mak, 2008) confidence in their ability to interact with persons with ASD has not been as positive of an attribute as it might seem. Specifically, Copenhaver et al. (2020) found that greater confidence levels in identifying persons with ASD meant that they knew less about ASD. Moreover, Modell and Mak (2008) had similar findings regarding an officer's false confidence and implications. Here, cadet confidence in identifying persons with ASD can be viewed by some as a positive attribute as it increases one's favorability towards the use of unique identification.

Although favorability towards using unique identification cards can be viewed positively, not everyone within the ASD community agrees. Some organizations associated with ASD agree with using unique identification cards to de-escalate law enforcement interactions with persons who potentially have ASD. For example, the Xavier DeGroat Autism Foundation (2018) states, "Having the individual's triggers, techniques for talking to them, and information on the individual's condition will be helpful for law enforcement when it comes to de-escalating

potentially stressful and triggering situations,” (n.p.). This assertion appears to align with public opinion with Davis’s (2021) finding that 71% of Facebook comments about ASD identification programs analyzed were generally favorable to its use. However, other organizations associated with ASD are not in favor of this use (see Autistic Mama, n.d.). Moreover, there are potential legal implications for violations of Health Insurance Portability Protection Act (1996). Though sharing someone’s developmental disability with law enforcement for safety purposes is usually legally allowed (see US Department of Health and Human Services, n.d.), the legality of mandating public disclosure of one’s developmental disability is not yet clear. This finding further underscores the need for continued research to examine the causal mechanisms of learning more general and practical knowledge of ASD and how it impacts increased favorability towards ASD persons carrying identification among law enforcement.

It is clear from this study that both increased general knowledge and practical knowledge of ASD increase the overall favorability of police cadets to support persons with ASD in carrying condition-identifying identification. This finding is similar to that of Bailey et al. (2001), who found that when officers are trained on matters related to persons with disabilities, their attitudes toward such individuals improve. Increased levels of general and practical knowledge may increase a cadet’s overall understanding of persons with ASD regarding the dangers that can result from not recognizing the signs and an interaction escalating to aggression or death. Additionally, it is possible that increased levels of general and practical knowledge increase a cadet’s overall empathetic understanding of persons and family members of persons with ASD. Here, empathetic understanding refers to understanding or being sensitive to the thoughts and experiences of a person with ASD. Future studies should examine the effect of such training on a cadet’s overall level of empathetic understanding.

It is possible that recruits' personality traits can serve as a moderating effect on any training, as Helfgott et al. (2023) found in their study on Guardian Law Enforcement Training. Future research should include the Self-Report Psychopathy-Short Form (SRP-SF) (as used by Helfgott et al., 2023) or develop a modified empathic understanding scale, such as the Jefferson Scale of Empathy developed for studies on the medical personnel-patient relationship (see Hojat et al., 2001).

Although this study provides increased knowledge on the role of increased general and practical understanding of persons with ASD and whether they should carry identification cards, it has limitations. First, race/ethnicity and marital status were not examined. It is possible that these demographic measures could provide further understanding of the relationships examined in this study. Second, this study only examined police cadets in a southern state. Consequently, regional differences may exist regarding the effect of training on perceptions of whether identification should be carried out. Future studies should examine other regions to see if any differences may exist based on locale. Third, the study design did not include a measure for empathetic understanding. As discussed above, it is possible that increasing one's general and practical knowledge of ASD increases an empathetic understanding of persons with ASD, ultimately increasing the favorability of identification. Fourth, it is possible that relying upon one measure for favorability could be problematic. Future research should include multiple measures of favorability to control potential bias.

Conclusion

Even though limitations exist, this study underscores the continued need to study how law enforcement training can impact future law enforcement officers' viewpoints toward critical aspects of persons with ASD. As diagnoses of persons with ASD and greater societal acceptance

and awareness of such persons continue, law enforcement must also increase their training and policies to manage interactions with persons with ASD. Though requiring persons with ASD to carry unique identification is a hot-button issue among the ASD community, it is clear from this study that increased training on the general and practical knowledge of persons with ASD does increase an officer's favorability towards using such identification. Research on effectively crafting policies to assist with such interactions is imperative to mitigate accelerated tensions and physical force resulting from law enforcement actions with persons with ASD.

References

- Alabama Department of Public Health. (2022, November 30). *Autism Spectrum Disorder identification cards issued at county health departments*. Alabama Department of Public Health.
<https://www.alabamapublichealth.gov/blog/2022/11/ah-autism-card.html>
- Anderson, M. (2019, April 13). *How one mother's battle is changing police training on disabilities*. National Public Radio.
<https://www.npr.org/2019/04/13/705887493/how-one-mothers-battle-is-changing-police-training-on-disabilities>
- Autistic Mama. (n.d.). *Advocacy and accommodations: Autistic people should not have to carry ID to stay safe*. Autistic Mama. <https://autisticmama.com/autistic-id-stay-safe/>
- Autism Speaks. (2018a, April 26). *CDC increases estimate of autism's prevalence by 15% to 1 in 59 children*. Autism Speaks.
<https://www.autismspeaks.org/science-news/cdc-increases-estimate-autisms-prevalence-15-percent-1-59-children>
- Autism Speaks. (2018b, July 6). *Autism and health: A special report by Autism Speaks*. Autism Speaks.
<https://www.autismspeaks.org/science-news/autism-and-health-special-report-autism-speaks>
- Autism Speaks. (2019, February 6). *What is Autism?* Autism Speaks.
<https://www.autismspeaks.org/what-autism>
- Bailey, A., Barr, O., & Bunting, B. (2001). Police attitudes toward people with intellectual

- disability: An evaluation of awareness training. *Journal of Intellectual Disability Research*, 45(4), 344-350.
- Bartley, J. J. (2006). An update on autism: Science, gender, and the law. *Gender Medicine*, 3(2), 73-78.
- Buescher, A. V., Cidav, Z., & Knapp, M. (2014). Costs of Autism Spectrum Disorder in the United Kingdom and the United States. *JAMA Pediatrics*, 168(8), 721-728.
- Bureau of Labor Statistics. (2019). Police and detectives. *Occupational Outlook Handbook*.
<https://www.bls.gov/ooh/protective-service/police-and-detectives.htm>
- Calton, S., & Hall, G. (2022). Autistic adults and their experiences with police personnel: A qualitative inquiry. *Psychiatry, Psychology and Law*, 29(2), 274-289.
- Car Autism Roadmap. (2016). *Intellectual disability and ASD*. Car Autism Roadmap.
<https://www.carautismroadmap.org/intellectual-disability-and-asd/>
- Centers for Disease Control and Prevention. (2019). *Autism Spectrum Disorder (ASD)*. Centers for Disease Control and Prevention.
<https://www.cdc.gov/ncbddd/autism/signs.html>
- Centers for Disease Control and Prevention. (2022, April 7). *CDC releases first estimates of the number of adults living with Autism Spectrum Disorder in the United States*. Centers for Disease Control and Prevention.
<https://www.cdc.gov/ncbddd/autism/features/adults-living-with-autism-spectrum-disorder.html>
- Centers for Disease Control and Prevention. (2023, March 24). *Prevalence and characteristics of Autism*

Spectrum Disorder among children aged 8 years- Autism and developmental disabilities monitoring network. Morbidity and mortality weekly report: Surveillance summaries.

Centers for Disease Control and Prevention.

https://www.cdc.gov/mmwr/volumes/72/ss/ss7202a1.htm?s_cid=ss7202a1_w

Chown, N. (2010). 'Do you have any difficulties that I may not be aware of?' A study of autism awareness and understanding in the UK police service. *International Journal of Police Science & Management*, 12(2), 256-273.

Cooper, D. S., Uppal, D., Railey, K. S., Blank Wilson, A., Maras, K., Zimmerman, E., et al. (2022). Policy gaps and opportunities: A systematic review of Autism Spectrum Disorder and criminal justice intersections. *Autism*, 26(5), 1014-1031.

Copenhaver, A., Denney, A. S., & Rapp, V. (2020). Police cadet general and interactional knowledge of persons with Autism Spectrum Disorders (ASDs). *Policing: An International Journal*, 43(2), 345-359.

Copenhaver, A., & Tewksbury, R. (2019). Interactions between autistic individuals and law enforcement: A mixed-methods exploratory study. *American Journal of Criminal Justice*, 44(1), 309-333.

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.

Crisanti, A. S., Earheart, J. A., Rosenbaum, N. A., Tinney, M., & Duhigg, D. J. (2018). Beyond

- Crisis Intervention Team (CIT) classroom training: Videoconference continuing education for law enforcement. *International Journal of Law and Psychiatry*, 62, 104-110.
- Curry, K.L., Posluszny, M.P., & Kraska, S.L. (1993). Training criminal justice personnel to recognize offenders with disabilities. *OSERS News in Print*, 5(3), 4-8.
- Davis, P. P. (2021). *Autism Spectrum Disorder identification card programs: Public attitude and themes* [Doctoral dissertation, Valdosta State University].
<https://www.proquest.com/docview/2626289948/fulltextPDF/FAC58A3B220A4B6APQ/1?accountid=14767&sourcetype=Dissertations%20&%20Theses>
- Davis, E., Whyde, A., & Langton, L. (2018). *Contacts between police and the public, 2015*. US Department of Justice: Bureau of Justice Statistics.
<https://www.bjs.gov/content/pub/pdf/cpp15.pdf>.
- Denworth, L. (2018, April 18). *Where communication breaks down for people with autism*. Spectrum News.
<https://www.spectrumnews.org/features/deep-dive/communication-breaks-people-autism/>.
- Eadens, D. M., Cranston-Gingras, A., Dupoux, E., & Eadens, D. W. (2015). Police officer perspectives on intellectual disability. *Policing: An International Journal of Police Strategies & Management*, 39(1), 222-235.
- Harris, T. (2019). *Reducing self-stimulatory behaviors in individuals with autism*. May Institute.
<https://www.mayinstitute.org/news/acl.html?id=355>
- Helfgott, J. B., Hickman, M. J., Strah, B. M., Atherley, L. T., Kosson, D. S., & Dorscher, E. (2023). The relationship between personality traits and the effectiveness of guardian law

enforcement training. *Journal of Forensic Psychology Research and Practice*, 23(3), 271-299.

Helsel, P. (2017, September 19). *Parents demand answers after autistic boy held on ground by officer*. NBC News.

<https://www.nbcnews.com/news/us-news/parents-demand-answers-after-autistic-boy-held-ground-officer-n802801>

Hojat, M., Mangione, S., Nasca, T. J., Cohen, J. M., Gonnella, J. S., Erdmann, J. B., Veloski, J., & Magee, M. (2001). The Jefferson Scale of Physical Empathy: Development and preliminary psychometric data. *Educational and Psychological Measurement*, 61(2), 349-365.

International Board of Credentialing and Continuing Education Standards. (2017). *Interview with Dr. Stephen Shore: Autism advocate & on the spectrum*. International Board of Credentialing and Continuing Education Standards.

<https://ibcces.org/blog/2018/03/23/12748/>

Manning, M. (2019, May 17). *Johns Hopkins All Children's simulation center helps police get insight into autism*. Catalyst.

<https://stpetecatalyst.com/johns-hopkins-all-childrens-simulation-center-helps-police-get-insight-into-autism/>

Margolies, D. (2017, August 17). *Case of autistic Missouri teen who was tased after stopping to tie his shoe moves forward*. KCUR 89.3.

<https://www.kcur.org/post/case-autistic-missouri-teen-who-was-tased-after-stopping-tie-his-shoe-moves-forward>

Miller, K. H. K., Becker, A., Cooper, D., & Shea, L. (2022). Justice system interactions among

autistic individuals: A multiple methods analysis. *Crime & Delinquency*, 68(9), 1579-1603.

Modell, S. J., & Mak, S. (2008). A preliminary assessment of police officers' knowledge and perceptions of persons with disabilities. *Intellectual and Developmental Disabilities*, 46(3), 183-189.

National Alliance on Mental Illness (2018). *Crisis Intervention Team (CIT) programs*. Get Involved.

<https://www.nami.org/Get-Involved/Law-Enforcement-and-Mental-Health>

National Autistic Society. (2017). *Autism: A guide for police officers and staff*. National Autistic Society.

<https://www.autism.org.uk/~media/nas/documents/publications/autism-police-guide-the-national-autistic-society-2017.ashx?la=en-gb>

National Autistic Society. (2018). *Meltdowns*. National Autistic Society.

<https://www.autism.org.uk/about/behaviour/meltdowns.aspx>.

National Institute of Mental Health. (n.d.). *Autism Spectrum Disorder*. National Institute of Mental Health.

<https://www.nimh.nih.gov/health/topics/autism-spectrum-disorders-asd>

Rava, J., Shattuck, P., Rast, J., & Roux, A. (2017). The prevalence and correlates of involvement in the criminal justice system among youth on the Autism Spectrum. *Journal of Autism and Developmental Disorders*, 47(2), 340-346.

Railey, K. S., Love, A. M. A., & Campbell, J. M. (2020). A systematic review of law enforcement training related to autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities*, 35(4), 221-223.

- Reyes, R., & Reyes, L. (2018, January 3). *I have nonverbal autism. Here's what I want you to know*. Organization for Autism Research.
<https://researchautism.org/i-have-nonverbal-autism-heres-what-i-want-you-to-know/>
- Salerno, A. C., & Schuller, R. A. (2019). A mixed-methods study of police experiences of adults with autism spectrum disorder in Canada. *International Journal of Law and Psychiatry*, *64*(1), 18-25.
- Stone, W. L., Ousley, O. Y., Yoder, P. J., Hogan, K. L., & Hepburn, S. L. (1997). Nonverbal communication in two-and three-year-old children with autism. *Journal of Autism and Developmental Disorders*, *27*(6), 677-696.
- Stone, W. L. (1987). Cross-disciplinary perspectives on autism. *Journal of Pediatric Psychology*, *12*(4), 615-630.
- US Department of Health and Human Services. (n.d.). *Disclosures for law enforcement purposes*. U.S. Department of Health and Human Service.
<https://www.hhs.gov/hipaa/for-professionals/faq/disclosures-for-law-enforcement-purposes/index.html>
- Vicker, B. (2019). *Functional categories of immediate echolalia*. Indiana Resource Center for Autism.
<https://www.iidc.indiana.edu/pages/Functional-Categories-of-Immediate-Echolalia>
- Wallace, D., Herbert, J., Tyler, D., & McGee-Hassrick, E. (2020). Interactions between individuals on the Autism spectrum and the police: The fears of parents, caregivers, and professionals. *Policing*, *15*(2), 950-964.
- Xavier DeGroat Autism Foundation. (2018, November 8). *Should we implement Autism ID*

cards? Xavier DeGroat Autism Foundation.

<https://www.xavierdegroatfoundation.org/should-we-implement-autism-id-cards>