Examining the sources of police confidence when working with autistic individuals

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Abstract

Purpose – Not only is the prevalence rate of autism spectrum disorder (ASD) rising, but there has been increased attention in the media focused on interactions between autistic individuals and police officers. Research suggests that police officers report concerns regarding how to appropriately support autistic individuals during interactions due to a lack of training opportunities or general knowledge of ASD. To contribute to this emerging research, the aim of the present study was to examine what makes police officers feel more or less confident when working with autistic individuals of all ages in the capacity of their job.

Design/methodology/approach – In the present study, police officers' responses ($N = 317$) to open-ended questions were analyzed using thematic analysis to understand what makes police officers feel more and less confident when interacting with someone with autism.

Findings – Analysis yielded several major and minor thematic categories, which were combined into three major factors including (a) effective training, (b) malleable factors and (c) fixed factors.

Originality/value – The findings of this study provide novel insight into police officer confidence to communicate and interact with autistic individuals. This research utilized the voices of police officers to identify areas of need and themes relating to officer confidence. The findings can be immediately used to inform research and practice and to improve relationships between first responders and the autistic community.

Keywords Autism spectrum disorder, Autism, Police officers, First responders, Law enforcement

Paper type Research paper

Policing attitudes and culture are currently shifting to reflect the diverse needs of the communities that they serve and to respond to national awareness of police violence, media accounts and public safety concerns (Campbell and Valera, 2020; Stoughton, 2020; Treisman, 2020). To better serve communities and as a foundation to their knowledge base, police training is adapting. To be an efficacious officer, one must be willing to serve and protect all individuals, which includes interacting with and supporting a variety of people within a diverse community setting. One area of acute focus within this broader mission is to explore best practices in policing related to supporting individuals on the autism spectrum [1]. Autism spectrum disorder (ASD) is a complex neurodevelopmental disorder that is characterized by social and communication differences and restricted and repetitive behaviors and interests (Rice *et al.*, 2016). For a police officer who may often interact with an individual on the autism spectrum

during emergency or high stress situations, *supporting* the individual means additional considerations including having (a) increased awareness and knowledge about characteristics of individuals with autism, (b) basic strategies to communicate and interact with someone who has social and communication weaknesses and (c) an ability to establish an environment where the individual feels seen, protected and respected.

Because ASD presents in diverse ways for every individual, people may experience social interactions in a similar way as their neurotypical peers, or they may find social interactions extremely challenging (American Psychiatric Association, 2013). The same is true for communication impairments: some individuals do not use verbal speech at all, while others have social communication impairments. According to the latest research, one in 54 children in the USA has a diagnosis of ASD, an increase from previous estimates (Maenner *et al.*, 2020). Similar ratios are identified internationally including Canada (1 in 66; Ofner *et al.*, 2018) and Denmark (1 in 83; Schendel and Thorsteinsson, 2018). One important consideration for this increasing population of community members is the role of awareness among first responders. Autistic individuals, caregivers and police officers have all stared that the indicators of ASD (social and communication challenges) present specific risks for interactions with first responders (e.g. Copenhaver and Tewksbury, 2019; Gibbs and Haas, 2020; Holloway *et al.*, 2020; Railey *et al.*, 2020a).

Not only is the prevalence of ASD rising, but there is increased attention in the media focused on interactions between autistic individuals and police officers (Copenhaver and Tewksbury, 2019; Waller, 2021). Results from several studies suggest that autistic individuals come into contact with police officers at high rates for a variety of reasons (e.g. being a victim of a crime, in response to a behavioral health crisis) (Rava *et al.*, 2017; Tint *et al.*, 2017). Further, a recent study by Gibbs *et al.* (2021) reported higher rates of sexual and physical violence for autistic adults. Despite this likelihood of interacting with autistic individuals, research suggests that police officers often lack knowledge about ASD and report concerns regarding how to appropriately support autistic individuals during interactions (Railey *et al.*, 2020a).

The core impairments consistent across autistic individuals (e.g. weaknesses in social-communication, repetitive and restrictive behaviors) influence daily functioning and community interactions and may be the cause of miscommunication between police officers and autistic individuals. Many typical autistic mannerisms can be misinterpreted as being a strange, suspicious or behaviors associated with substance use/abuse. Additionally, these movements run the risk of being mistaken as furtive movements, giving an officer the ability to establish reasonable suspicion. Without more education about autism, implicit biases (Morrow and Shjarback, 2019) may influence an officer to see common autistic movements as furtive movements. For example, if an individual's eye contact is reduced, police officers may assume the person is demonstrating suspicious behavior. Stimming, a common autistic behavior that involves repetitive body movements as a form of self-regulation, may be misinterpreted as someone who is under the influence of alcohol or drugs. If a police officer misinterprets the behaviors of an autistic individual or fails to find a way to communicate with a person in crisis, negative outcomes can follow (Copenhaver and Tewksbury, 2019). Because ASD results in deficits in social communication, police officers should consider how they will interact with and support individuals who may not communicate or socialize in a traditional manner. Knowledgeable officers may even have the opportunity to serve as community resources for families and others navigating the challenges of ASD, which will naturally lead to increased trust between the autism community and officers.

Police officers are receptive and willing to be trained in ASD, and US states such as Florida and Maryland have mandated autism training to increase awareness and reduce violent and encounters between police and autistic individuals (Shonebarger, 2019). In parallel to policy

advances, researchers are studying the effectiveness and impact of autism-specific training for officers (Gardner *et al.*, 2019; Shea *et al.*, 2021; Teagardin *et al.*, 2012; Railey *et al.*, 2020a, b, c) Consistency does not yet exist across training modes (e.g. online vs in-person) or delivery content as research is still in its infancy. According to a 2020 scoping review, 12 studies have addressed criminal justice professional's knowledge and training experiences related to ASD (Railey *et al.*, 2020b). However, only two of those studies addressed training specific for law enforcement officers (see Railey *et al.*, 2020c, for a review). Demonstrating the efficacy and effectiveness of training opportunities for police officers is difficult beyond self-report measures that report changes in knowledge, attitudes and intentions because gathering direct behavioral outcomes is complicated within a policing context due to confidentiality and other influences (Gardner *et al.*, 2019).

While more rigorous work in this area is still emerging and longitudinal studies are needed to understand the retention of this knowledge, it is important to consider other variables and constructs when refining and designing trainings. One theory of human functioning hypothesizes that human behavior can be explained by the reciprocal interactions of personal, environmental and behavioral factors (Bandura, 1986). Self-efficacy is one important personal factor within social cognitive theory research and has been shown to be an important determinant of behavior and effort for many professionals such as teachers (Love *et al.*, 2020a; Ruble *et al.*, 2013; Zee and Koomen, 2016) and nurses (Fida *et al.*, 2018). For police officers to be effective in supporting autistic individuals, they must not only have the knowledge and skills, but they must believe in their own capabilities to demonstrate these skills (Bandura, 1997). Bandura (1997) defined self-efficacy as the belief in one's capabilities to produce given levels of attainment and is a more specific and descriptive form of confidence that relates to one's capability judgments.

Although emerging research in this area highlights the importance of self-efficacy for police officers and the link between knowledge and self-efficacy (Love *et al.*, 2020c), little information is known about the sources of self-efficacy for officers specific to their work with autistic individuals. In a recent study, Copenhaver *et al.* (2020) examined general and interactional knowledge of ASD and confidence in supporting autistic persons in a sample of cadets from a southern state in the USA. Results highlighted that cadets who reported having higher confidence in their ability to interact with autistic individuals had lower autism knowledge scores than cadets reporting lower overall confidence. However, findings also showed that officers' confidence in their ability to identify autistic people was generally associated with overall knowledge of ASD. According to the researchers, this finding suggests that cadets may perceive themselves to be overly competent in their abilities relative to their actual knowledge of ASD (Copenhaver*et al.*, 2020).

In response to this gap in the current literature, the aim of the present study was to explore what makes officers feel more and less self-efficacious when working with autistic individuals in the capacity of their jobs. A survey qualitative methodology was chosen due to limited research in this area and to gather rich, descriptive data from officers with diverse training backgrounds and from varied geographical locations. The term "confident" was used instead of "self-efficacious" to ensure that police officers were clear on what we were asking. We aimed to gather themes from the research that would have immediate practical relevance for other researchers who are developing training opportunities for police officers about autism, while police reform and police advancements have swelling momentum.

Method
Data for this study was extracted from a larger study, which used an anonymous survey to examine police officers' knowledge and self-efficacy for working with autistic individuals

(Love *et al.*, 2020c). Active police officers (i.e. those currently working as police officers in any role) throughout the USA were considered eligible to participate, and details of recruitment can be found within the larger study, Love *et al.* (2020a). Police officers (N = 317) were 78% male, had a mean age of 42 years (SD = 8.8) and reported an average of 17 years of law enforcement experience (SD = 9.1). The data that were analyzed for this study included demographic questions and responses to the following two open-ended questions: what makes you feel (a) *less confident* or (b) *more confident* in your capabilities as a police officer to work with someone with autism?

Procedure and data analysis

Police officers' open-ended responses were entered verbatim using NVivo 12 to be further analyzed using a thematic analysis (TA; Braun and Clarke, 2006) approach. Open-ended survey questions were used to allow for flexibility as well as to ensure that officers' responses were not limited to and influenced by predefined answer choices. The research team utilized TA methodology as TA aims to discover and depict the underlying themes present within the data, and it allows researchers to summarize key features of a large dataset (Braun *et al.*, 2015; Pistrang and Barker, 2012).

When using TA, themes are categorized in a hierarchical nature, with main themes and subthemes emerging from the data. For the current study, the research team utilized the following six phases of TA to identify, explore and record patterns within the survey responses: (a) data familiarization, (b) generation of initial codes, (c) identification and development of themes and subthemes, (d) review of themes, (e) naming and defining themes and (f) production of the final report (Braun and Clarke, 2006; Terry *et al.*, 2017). During the phase one, the first author began by reading and rereading the raw data from survey responses, taking thorough notes regarding initial thoughts and reactions. Following this step, the code generation phase was initiated, which involved the first author synthesizing larger aspects of the data in order to develop initial codes, with the support of the research team. Specifically, during this second phase, the second researcher also reviewed the raw data (line by line) to identify initial codes, make notes on potential data of interest, identify connections between data items and highlight other preliminary thoughts that may inform subsequent theme development.

Phase three began as researchers then examined the coded and collated data to identify possible themes with broader significance. Braun and Clarke (2006) defined a theme as "a patterned response or meaning" derived from data that inform the research questions. In line with the TA process, patterns in themes were identified by analyzing, combining and comparing initial codes and comments on the data items. Previous researchers outlining the use of TA have suggested that "no defined threshold exists for the amount of data that constitutes a theme" (Kiger and Varpio, 2020, pp. 5–6). During phase three, thematic mapping also was incorporated to visualize and understand patterns within the themes and datasets.

Phases four and five involved revising and further defining themes. During phase four, the researchers worked together to review coded data placed within each theme, asking questions and engaging in discussions as a team to ensure proper fit (e.g. does each theme have adequate supporting data? Are data included coherent in support each theme?). The team worked together to modify themes to better reflect and capture coded data, and the primary researcher reread the entire dataset to reexamine themes and recode for any additional data. Finally, the research team reviewed and modified the thematic map to address any newly created or modified themes and subthemes. If there was a disagreement between researchers regarding coding and theme development throughout the process, the meaning of the narrative, codes and themes were discussed until consensus was reached.

During phase five, major themes were named to capture the full meaning of each theme. In addition, the primary researcher created an initial narrative description of each theme, which the team discussed in detail and modified together. This narrative outlined how and why the coded data within each theme provide unique insights and contribute directly to the research questions. The final phase in the research process, creating the final report, included extracting representative quotes as well as further defining themes and subthemes in a narrative form. Of note, the development of initial codes, themes and the thematic map involved an iterative process where the research team worked together to identify and examine themes and subthemes that were guided by the study's research questions.

Results

Three major themes emerged as factors that contributed to police officer confidence: (1) *effective training*, (2) *malleable factors* (3) and *fixed factors* (see Figure 1). The first and most frequently discussed theme, *effective training*, resulted from participants who detailed their training needs (e.g. repetitive, face-to-face, real-life training). In analyzing the data and gathering themes, the next two themes emerged when reflecting on factors that were *malleable* and could be influenced by a quality training opportunity or *fixed* or viewed as part of the complexity of being a police officer working with someone with autism. The second theme, *malleable factors,* encompasses responses from police officers that were identified as being impressionable or things that could be changed or influenced (e.g. increased exposure to autism or gaining personal connections). Finally, the theme *fixed factors* derived from police officer responses about things that could not be changed or influenced, even when provided with a quality training opportunity (e.g. stress of an emergency situation, complexity of autism). Figure 1 demonstrates how there is less of a connection between *fixed factors* and *effective training*, as fixed factors will not change regardless of a quality training.

Effective training

The majority of officers mentioned the importance of officers possessing specific knowledge of autism gained through *effective training,* or details provided by participants on what
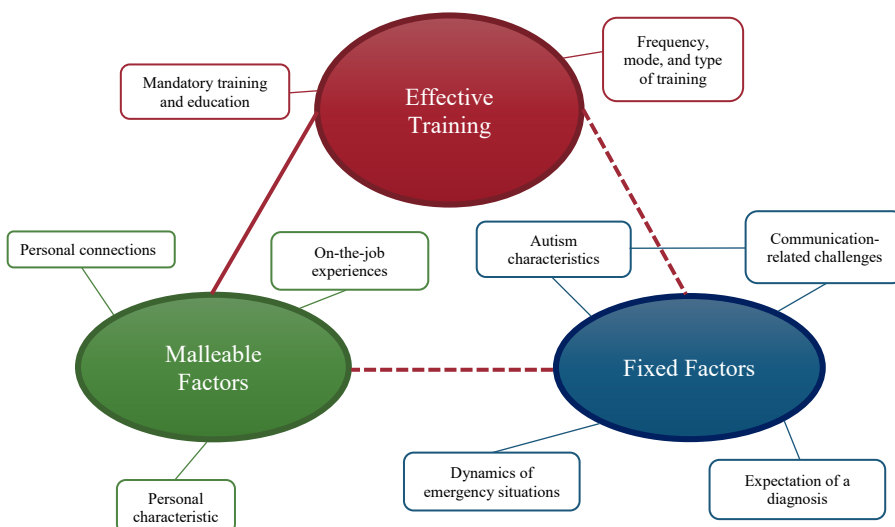

Figure 1.
Major and minor
themes that emerged
from the data

training should look like in order to increase their confidence. Two subthemes emerged: "mandatory training and education" and "frequency, mode, and type of training" within this main theme. Overall, participants who identified having received high-quality training made more frequent statements that they were confident in their abilities to support autistic individuals, compared to officers who had little or no training in ASD. One officer described how a training opportunity gave him the tools needed to feel confident when working with autistic individuals, "*I have been fortunate enough to have a department that has invested in training for interacting with persons with autism. Being taught patience, timing, and over all compassion has helped in interactions with persons with autism*" (P115, M, 16) [2].

Mandatory training and education. As this theme reflected feedback from officers on what qualifies as an "effective training," a subtheme emerged that was specifically about the importance of mandated training and the importance of all officers receiving ASD education. Repetitively, officers noted how training on autism should be mandatory, not optional or recommended. As an example, one officer shared "*It should be a mandatory course incorporated with other courses. The more familiar a person is with the subject manner, the more likely they are able to adapt to what they do with people*" (P25, F, 10). Further, officers frequently noted that effective training about ASD only existed when it was not just present for preservice officers, but "*compulsory for all stages of officers including those who have been in the job for a long time.*" (P109, F, 3). Officers reflected on optional training opportunities, saying mandatory policies made a statement to their community that autistic individuals were "*a priority, not an after-thought*" (P14, M, 12) and that ensuring all officers were trained meant those who had been in the force longer could rely on new information and education that incoming officers may already have received.

Frequency, mode and type of training. The second subtheme incorporated feedback from officers about the important active mechanisms and individualized aspects of the training that determine the effectiveness. In many instances, participants made clear that training needed to be more than a pamphlet or one-time lecture. Specifically, many officers shared that training should include hands-on experiences to give officers a chance to apply the material they receive in training opportunities. For example, one participant shared, "*Officers need more education, hands on training (volunteer at school or after school program) . . . so that the first time you encounter someone with autism. . .it is not because of an emergency*" (P54, F, 23). Another officer spoke about how introductory courses were not enough, "*I have received introductory information about autism. However, I am certain that this is a minimal level of knowledge and not mastery of the subject. Additionally, if practice makes perfect, I have very limited real-life exposure to this situation*" (P212, M, 25). Trainings should be frequently updated and repeated to keep up with new research-based strategies and knowledge about ASD. One police officer explained "*Just as law changes, ways to work with someone with autism can change or improve for the better. Officers do not get Autism training/updates every year*" (P21, M, 20). Based on repetitive responses that mentioned "*frequent,*" "*repeated*" and "*hands-on*" training opportunities, it was clear that officers who had received other modes of training felt they were ineffective at increasing their confidence to support autistic individuals.

Malleable factors

The second major theme that emerged from the data included *malleable factors*, which includes factors that can be influenced by more effective training, changes in attitudes, increased personal experiences or policies to either increase or decrease police office confidence. This theme encompassed responses from police officers who reflected on shapeable factors that increased or decreased their confidence. Subthemes are described below.

On-the-job experiences. Although officers mentioned practical and hands-on training experiences were important in increasing their confidence before interacting with autistic

individuals, they also mentioned the importance of on-the-job interactions separate from training, suggesting that their professional experiences in their roles as officers directly influenced their confidence. Responses from participants detailed regular opportunities where they came to better understand autistic individuals in their community while on the job, which actively improved their confidence in supporting and working with them professionally. Further, many officers who reported very few experiences working with autistic individuals cited this limited experience on the job as contributing to their lack of confidence. For example, an officer described his own lack of on-the-job experience by saying, "*I simply have not had much interaction under challenging circumstances... the lack of firsthand experience is driving my confidence level at this time. I am not currently in a position to respond to calls for service*" (P111, F, 15). Participants felt that training needed to be paired with on-the-job experiences in order to solidify their knowledge and abilities. One officer said, "*Once I gained experience with people within my autism community, I was able to apply the strategies I learned and actually see how beneficial it was to apply what I learned. Otherwise, it would have just gone in one ear and out the other. Now I think of those people in my community, not the training*" (P3, M, 8).

Personal connections. The second subtheme that emerged focused on personal connections to ASD (e.g. officers referencing siblings, friends and children in their communities who they know have autism). One officer shared how time spent with his autistic sibling has directly influenced his knowledge base and interactions on the job, "*My brother is on the spectrum so I use a lot of information that I have learned from him*" (P254, F, missing). One officer, who was also a parent of a child with autism said, "*I have a child with autism. I learn more about myself and helping others from my child and other children with autism. My child is amazing*" (P98, M, 19). Of note, all participants who mentioned personal connections to autism cited this as the single most important thing that improved their confidence. While these responses were rare, all officers who reported a personal connection identified this as the solo component that increased their confidence.

Police officer characteristics. Finally, "police officer characteristics" emerged as a subtheme as officers often commented on their own personality traits as factors that contributed to their high or low confidence. One officer described his easy-going personality as one of the factors that increased his confidence for supporting autistic individuals, sharing, "*I have a good temperament and do not tend to get upset too easily*" (P43, M, 3). Another officer explained that it was his calm personality that helps them: "*I have the ability to speak with people calmly. Being an older officer, I learned to take my time. This was probably not the case when I was younger officer*" (P31, M, 34). Consistently, officers who mentioned their own personal characteristics as reasons for their confidence felt that these qualities were what could be attributed to positive experiences they had while supporting autistic individuals in the community.

The majority of participants referenced their calm or patient traits that seemed to equate to positive experiences with autistic individuals. Officers who "*gave extra time*" or reflected a "*gentle and calm*" demeanor helped them feel more confident in working with autistic individuals. For example, one officer said "*I gave the guy extra time to process what I was saying and made sure other officers did not come flying into the scene. With that extra time, he responded calmly. I'm naturally patient, which makes me feel better in these situations*" (P23, M, 19). On the other hand, some officers felt easily rushed, anxious about communicating with someone in an alternative way, or felt stressed about supporting autistic individuals. These officers felt their own feelings or characteristics lowered their confidence and increased their anxiety or stress around interactions with someone with autism. An officer explained, "*I do not have time to slow down, even if I wanted to. I'm patient I think, but I tend to communicate in one way as an officer*" (P38, M, 2). Based on analysis of participants' reports, it became clear

that officers' self-identified personal characteristics had the ability to directly influence their confidence in supporting autistic individuals during interactions.

Fixed factors
The third theme was gathered from police officer responses around concrete factors or factors that were more permanent and less likely to be influenced or modified. Subthemes are described below. This theme was important because police officers' responses indicated that they felt it was important to acknowledge those things that were outside of their control or outside of the scope of their job. Additionally, this theme included responses that spoke about things that could not be changed, such as the dynamics of an emergency situation or the complexity of autism.

Autism characteristics. The subtheme of "autism characteristics" encompassed responses from officers that noted aspects related to ASD that appear to decrease officers' confidence in their ability to respond appropriately. Many officers acknowledged the diversity within the autism spectrum and emphasized that the varied behavioral presentations can pose challenges for their knowledge base. For example, one officer stated, "*autism is such a broad spectrum. No two people with autism are the same. It can be hard to develop a textbook response to autistic persons, which is what we sometimes need to do*" (P209, M, 14). While noting the importance of experience, another officer also acknowledged how individualized responses need to be: "*Lack of experience and the fact all situations are different. What works for one person with autism might be a trigger for another*" (P116, F, 6).

Communication-related challenges. A second emerging subtheme related to autism characteristics, but was distinct in the focus of participants' responses. Specifically, officers reported detailed and unique concerns related to their ability to communicate with autistic individuals, which appeared to directly affect officers' confidence levels. In particular, several officers recalled instances where they struggled to quickly and effectively communicate with someone that experienced expressive and/or receptive language weaknesses. The majority of officers appeared to understand that ASD is associated with communication challenges, which may pose specific challenges for officers trying to support these individuals in emergency situations, especially for "*an autistic person that is non-verbal*" as one officer shared. Another officer recalled that "*communicating important messages (like put the knife down), that require quick action from someone with autism, is not always easy; it could lead to an officer being forced to intervene physically if the individual is about to harm someone else*" (P100, F, 4).

Further, one officer shared that the amount of additional time it takes to communicate or work with autistic individuals that are "*non-verbal*" needed to be considered. This participant elaborated that "*without a caretaker, it's a challenge sometimes to figure out the best way to communicate without escalating the situation for the individual*" (P34, M, 14). Both receptive language (i.e. how language is understood) and expressive language (i.e. how an individual uses language) were cited as areas of concern. Receptive challenges included difficulty listening and responding to instructions, as one officer explained "*I'm terrified that [they] will not understand me when I give them a command that will keep them safe*" (P76, M, 16). Others cited expressive challenges as many officers worried about how to understand different modes of communication, especially if someone was hurt or asking for help. An officer recalled a recent challenge of communicating with someone who used picture communication and said, "*I had no idea how to ask questions and understand answers, even though I know [she] was trying to give me an answer to what I asked*" (P97, F, 7).

Dynamics of emergency situations. Many officers explained that their lack of confidence for working with autistic individuals is in part due to the challenging dynamics of emergency situations, which often cannot be adjusted or changed. One officer identified the challenge of being expected to serve in a variety of roles while responding to emergency situations. He stated

that, "*police officers are already tasked with multiple things to do in a very limited amount of time and the level of skill needed to know everything we should about autism, along with the lack of time to help (needing to go to the next, priority call holding) makes it next to impossible to handle a situation involving autism (or anything for that matter) appropriately or to the level that society believes police can do so*" (P24, M, 16). For some, this overlapped with autism characteristics as one officer explained, "*The wide spectrum of behaviors and actions of persons with Autism [lowers my confidence]. You need to observe someone for a few moments to determine a plan of action but you may not have a few moments in a crisis situation. This may lead to a rough start and possible problems during the encounter*" (P154, M, 13). Emergency situations are fast-paced and officers often have a "*Lack of time to devote to one particular run*" (P76, M, 2). One officer described being an officer as a "*reactive*" profession by nature, where "*there are too many variables to accurately predict how a situation will unfold without prior knowledge of a particular individual*" (P121, F, 14).

Expectation of a diagnosis. The final subtheme that emerged was the "expectation of a diagnosis," which includes officers' comments that relate to the stress and pressure related particularly to a diagnosis ASD. Many officers referenced their apprehension and the pressure around the expectation they felt to diagnose ASD during an emergency situation. One officer explained "*It can take some devoted time for someone to get diagnosed as autistic. As a patrol officer, I'm expected to diagnose people on arrival, accurately, from afar, instantly. This is unrealistic. All of my tools dealing with autistic people are great but until I know they are autistic they are of minimal use.*" This was also the challenge of having to obtain specialized knowledge about an additional disorder, "*There are so many different people we deal with that have differing backgrounds, experiences, conditions; it is sometimes difficult to remember how each person should be dealt with*" (P199, M, 3). Finally, officers also referenced their frustration in unfair expectations around an ASD diagnosis. For example, one officer shared, "*I am not a medical professional, or it most situations things cannot be slowed down enough to gather information on the person needs when enforcement actions need to be put in place*" (P133, M, 20).

Discussion
The current study utilized the voices of police officers to identify areas of need and themes relating to officer confidence, and the findings of this study provide novel insight into police officer confidence in working with autistic individuals. There is current international attention on the autism-specific training of first responders (Cooper *et al.*, 2022; Gardner *et al.*, 2019; Love *et al.*, 2020b; Railey *et al.*, 2020b). While some police departments are responding to state mandates that require autism awareness training, other departments are proactively choosing to educate and inform their officers to prevent tragic incidents of misunderstanding, without the presence of state mandates. The results of this study can be used as those opportunities are developed and to understand what might improve the relationship between autistic communities and police officers. What is clear from this study is that a traditional lecture about autism has not been enough to increase confidence in officers.

Previous research suggests that autism training has led to statistically significant improvements in self-reported knowledge of ASD (e.g. Teagardin *et al.*, 2012). However, given that participants' scores on the posttest remained low for both the control and training group, it is important to further explore additional factors that may attribute to and improve officers' knowledge of ASD. Possibly, attention to the voices of police officers can stimulate creation of a training that allows for a true increase in knowledge and confidence that will translate to changes in police behavior. These relationships have not yet been established with statistical evidence, and future research is warranted. However, results of this study made clear that training must be (a) mandatory, (b) ongoing and (c) hands-on, with practical "on the job" training. Officers who had personal connections or positive experiences with autistic

individuals in their community reported the highest levels of confidence, and participants repetitively made it clear that a one-time, traditional training opportunity was not enough to change police behavior.

Additionally, there was a strong theme of apprehension around the challenge of diagnosing autism that must be addressed. Police officers articulated the stress they feel from community members to be able to diagnose autism. Therefore, training needs to address this concern and community pressure by targeting training with the goal to teach officers to recognize symptoms, not diagnose autism. Police officers are not be expected to diagnosis autism during an emergency situation, rather to use strategies to support autistic individuals (e.g. diverse communication strategies, consider social challenges, give additional time for responses) if signs and symptoms are present or the individual/caregivers disclosed autism. This expectation should be clearly articulated to police to clarify their role and the role of other professionals with whom they can collaborate with and rely on. Additionally, providing a wider range of healthcare professionals (e.g. mental health professionals, nurses, social workers) who can support the police force may address this concern and should be considered in future reform efforts.

Theoretical implications

Bandura (1986) defines four sources of self-efficacy: mastery experiences (interpretations of one's past experiences), vicarious experiences (observing others experiences), verbal persuasion (receiving messages or evaluations from others regarding one's performance) and emotional and physiological states (physiological and emotional responses during experiences). Targeting police training to the sources of self-efficacy can help increase an officer's self-efficacy and, according to the underlying social cognitive theory, can contribute to changes in behavior. This has been modeled in the domain of teaching students with ASD (Ruble et al., 2011), and the strength and importance of each source depend on the domain being studied. For our study and the domain of police officer self-efficacy for interacting with individuals with ASD, mastery experiences were the most dominant, which is a finding that has been evident in other domains (e.g. Usher and Pajares, 2008). For police officers, reports of personal connection and positive experiences with autistic individuals were cited in excess as sources of confidence. Although our study did not analyze the strength of the sources of confidence, it was important to note that mastery experiences emerged as a frequent theme. First, mastery experiences were cited as an active mechanism within training, and the idea that "on the job training" was crucial emerged as a minor theme from our data. Officers clearly articulated that traditional training alone is not enough; mastery experiences are more impactful sources of confidence or self-efficacy for police officers. Mastery experiences were also cited as a way for police officers to individually increase their confidence, despite the training they received. This is important because officers who reflected on their own capability beliefs made clear that they believed enhanced mastery experiences increased their confidence. Similar to preservice teacher training, hands-on activities must be used in tandem to traditional training methods in order to effectively change an officer's self-efficacy.

This study compliments the beginning of a focus on the construct of police officer self-efficacy for working with autistic individuals (Love et al., 2020a). It is outside the scope of this study to determine the strength of the sources of police self-efficacy for working with autistic individuals, but the study provided consistent themes derived from data on possible sources of increased or decreased confidence. The construct of police self-efficacy for working with autistic individuals was originally defined by Love et al. (2020c). However, the construct is in its infancy, and it is still unknown whether police officers' sources of self-efficacy will reflect similar themes as other professionals.

Due to the COVID-19 pandemic, virtual training and online modules are being considered and funded; however, evidence from our study would suggest that a virtual training alone

would not help to increase confidence in police officers. Complementary hands-on experiences where police officers can form personal connections with their autistic community and gain practical experience and "on the job training" will be critical to changing police behavior. Training about autism for police officers can be enhanced in other creative ways that would promote positive relationships between police officers and the autistic community. Police officers could spend time in schools, attend autistic support groups or parent meetings, gain training in alternative communication devices, liaise with local allied health professionals such as occupational or speech therapists or host meet-and-greet opportunities. Actively enhancing personal connections will lead to an increase in mastery experiences, further increase police officer's self-efficacy for working with individuals with autism.

The current study was strengthened by its qualitative methodology and ability to deeply explore the sources of confidence of police officers who work with autistic individuals. However, the nature of the policing profession is that many police officers have context-specific experiences based on how autism-friendly their community is, their professional capacity and their own experiences. It was not the aim of this study to generalize these results to all police officers, as the profession of policing is influenced heavily by the state and local culture and community. Therefore, future, larger-scale research is necessary to situate police officers' challenges and supports within a clear environmental context to help inform interventions that are context-specific. Overall, this study was exploratory in nature and aimed to begin a line of research that has been neglected in the literature thus far and should be further extended through future research.

Currently, elements of police behavior and training are under examination, with reform efforts rising to meet the changing needs of their national and international communities. As autism training programs are being developed along with reform efforts, it is critical that the voices of police officers are considered in the design of these training opportunities. Practical experiences or "on-the-job" training were identified as sources of confidence for the participants of this study, and many officers reported the importance of repetitive and regular autism training. Further, officers shared a preference that trainings include hands-on components, even if presented in lecture or didactic format where information about ASD is provided. This finding is corroborated by Hinkle and Lerman (2021), who investigated a simulation style training as a means for improving the outcomes of police officers who interact with autistic individuals. Officers who had personal connections also reported increased confidence in interacting with autistic individuals and could possibly be used as department leaders in training opportunities.

Notes

1. The authors are aware of different preferences and reasoning regarding the use of person-first language (e.g. individual with ASD) versus identity-first language (e.g. autistic individual). To be inclusive of all communities and their preferences regarding language, the terms will be used interchangeably throughout the manuscript.

2. Participant number, Self-reported gender, years of service as a police officer.

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