

FIRST RESPONDERS' PERCEPTIONS OF PUBLIC SAFETY INSTRUCTION FOR
INDIVIDUALS WITH INTELLECTUAL DISABILITIES

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY

DEPARTMENT OF TEACHER EDUCATION
COLLEGE OF PROFESSIONAL EDUCATION

BY

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DENTON, TEXAS

MAY 2021

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DEDICATION

For Sandra Bland, Courtlin Arrington, Atatiana Jefferson, and Breonna Taylor.

I will say Her name.

ACKNOWLEDGEMENTS

I would like to thank God, with Him everything is possible. I also would like to thank Dr. Goo, Dr. Keeley, Dr. Sanchez, and Dr. Amamoo for their support in the dissertation process. For those who have touched my life in any way since I started this process, you all know who you are, I am truly grateful for all you have done. Finally, I would like to show my gratitude to the Jane Nelson Institute for Women's Leadership at Texas Woman's University for funding this project and helping in preparing one more woman to be a pioneer in public service.

ABSTRACT

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MAY 2021

It can be quite challenging for first responders to identify an individual with intellectual disabilities (ID). As a result, individuals with ID are often mistakenly perceived as suspicious when the behavior is related to their disability. This study addressed the questions of whether there were significant differences in first responders' perceptions of public safety instruction for individuals with ID and whether ADA awareness predicted preparedness. Results from ANOVAs did show significant differences in first responders' ratings. Additionally, linear regression results revealed that ADA awareness was a significant predictor of preparedness. Findings from this study suggest that advocates of ID should focus more on profession/disability-specific training programs which promote ADA awareness, confidence-building, and strategy. These programs should also guide first responders in developing culturally responsive practices for teaching individuals with ID of various cultural backgrounds that, in turn, could promote social change by ensuring that an at-risk population receives the same access to public safety instruction as those without disabilities. Limitations and implications for future research were also discussed.

TABLE OF CONTENTS

	Page
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
ABSTRACT.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES	vi
LIST OF FIGURES	vii
Chapter	
I. INTRODUCTION	1
II. LITERATURE REVIEW	9
III. METHODOLOGY	24
IV. RESULTS	33
V. IMPLICATIONS, RECOMMENDATIONS, CONCLUSION	55
REFERENCES	68
APPENDICES	
A. Public Safety for Individuals with Intellectual Disabilities - Questionnaire	80
B. Email for Consent to Use Existing Survey	86
C. Recruitment Letter.....	88

LIST OF TABLES

Table	Page
1. Types of Disability Reported between 2013-2015 in Instances of Police Violence.....	3
2. The Frequency and Percentage of Safety Skills by Type.....	17
3. Studies on the Intervention of Teaching Public Safety Skills to Individuals with ID...	20
4. Summary of Factor Analysis.....	36
5. Summary of Reliability Analysis.....	39
6. Descriptive Demographic Characteristics of Sample.....	41
7. <i>F</i> -tests for PSIID-Q Score by First Responder Group.....	44
8. Means and Standard Deviations for Subscales by First Responder Group.....	47
9. One-way ANOVA Test on the Attitude Subscale.....	48
10. One-way ANOVA Test on the ADA Awareness Subscale.....	49
11. One-way ANOVA Test on the Confidence Subscale.....	50
12. One-way ANOVA Test on the Strategy Subscale.....	50
13. Linear Regression Model Results.....	51
14. Regression Model Summaries.....	52

LIST OF FIGURES

Figure	Page
1. Comparison of Mean PSIID-Q Score by First Responder Group.....	44
2. Comparison of the Four Subscale Scores by First Responder Group.....	48

CHAPTER I

INTRODUCTION

Individuals with Intellectual Disabilities Matter

In all regions of the world, individuals with disabilities face marginalization and significant barriers to the full realization of their rights and to their inclusion in society and development (Convention on the Rights of Persons with Disabilities, 2015).

However, a pressing, yet less covered, issue is that law enforcement officers are often the first responders for incidents that involve individuals with disabilities, mental illness, communication impairments, and/or individuals with limited English (Neave-Ditoro et al., 2019), along with limited cognitive abilities. The vulnerabilities associated with the intellectual disability (ID) include limited intellectual and adaptive functioning that results in a person displaying poor communication and reasoning skills, decreased social awareness, and poor mobility due to the potential physical ailments sometimes associated with ID (Henshaw & Thomas, 2012). These may lead to many individuals with ID finding themselves in challenging situations with negative outcomes. Due to first responders usually being the first contact in a crisis, many are finding themselves fulfilling more roles of intervening and advocating for individuals with ID in emergency situations and disasters.

Statement of Problem

In the United States, individuals with ID are identified more at risk of going to prison when race and cognitive ability are considered. In a national study that consisted of 30, 269 African American, Hispanic, or White inmates with disabilities, African American inmates had a higher prevalence of cognitive disabilities compared with White and Hispanic inmates (Baloch & Jennings, 2019). With the authors identifying cognitive disabilities generally as specific intellectual conditions ranging from learning, reading, and difficulty concentrating, their findings mirrored the disabilities and minority youth contact with the criminal justice system literature, where there is an overrepresentation of African American children overall and in specific intellectual disabilities and mental retardation categories specifically (Baglivio et al., 2017).

While those with ID comprise 2% to 3% of the general population, they represent 4% to 10% of the prison population, with an even greater number of those in juvenile facilities and in jails (Petersilia, 2000). Individuals with ID are also more vulnerable to being the victims of crime than individuals of a comparable age without such a disability. Due to growing emphasis on Autism Spectrum Disorder (ASD), partly in response to several well-publicized incidents between law enforcement and individuals with ASD, several training programs that have focused on individuals with ID have been developed (Christensen & Bezyak, 2017); however, these training programs are from the perspectives of first responders whose duty is by law to accommodate individuals with disabilities in general.

Another issue lies in the actuality that most first responder training programs are partly a result of the complexity of disabilities. The concept of determining the right way to communicate is somewhat disability specific and not always clear cut, despite the general legal requirement for police departments to provide effective communication pursuant to Title II of the Americans with Disabilities Act (Americans with Disabilities Act [ADA], 1990; Engelman & Deardorff, 2016). To draw attention to the concerns of the public service system for individuals with disabilities, Perry and Carter-Long (2016) reported the increase of violent encounters increasing from year to year between 2013 and 2015. Table 1 below represents types of disability reported in instances involving police violence, with ID being the second highest among all other disability groups.

Table 1

Types of Disability Reported between 2013-2015 in Instances of Police Violence

Disability	2013	2014	2015
Mental Illness/Psychiatric Disability	27	53	202
Intellectual/Developmental Disability	11	13	17
Autism	4	5	11
Deafness	1	3	7
Amputee	1	1	4
Wheelchair-User	1	1	10
Traumatic Brain Injury (TBI)	1	0	0
TBI/Cane	0	1	0
Unknown or Non-Specific	2	0	10

The Ruderman Family Foundation report noted that individuals with disabilities comprise one-third to one-half of all people killed by law enforcement officers and that the majority of those killed in use-of-force cases attracts widespread attention (Perry & Carter-Long, 2016). While this posits that first responders are prepared and aware of the needs of individuals with disabilities, researchers have found a minimal level of community engagement in many Western nations, recognizing that U.S. systems of criminal justice and punishment have largely failed to comprehend the diverse needs of individuals with mental illnesses, intellectual disabilities, and/or cognitive impairments (Segrave et al., 2017). To fully support law, a general policy of focusing on improving conversational interaction by training first responders, rather than the individuals with disabilities, is recommended (Christensen & Bezyak, 2017).

Significance of the Research Study

As with all public service groups, disaster vulnerability is best understood as the result of the combined effects of characteristics of the individual, group, or community, as well as the social, economic, and political factors that influence their capacity to anticipate the disaster or crisis, cope, and recover from the event and its aftermath (Kilmer & Gil-Rivas, 2010). Although the importance of safety skills instruction is well acknowledged and available data suggest individuals with varying disabilities sustain injuries from accidents at a rate that is comparable to or may exceed the normative population, many do not receive systematic safety skills instruction (Agran et al., 2012). To add to the conundrum, police officers were traditionally regarded as the crime-fighters and law-enforcers of society, and now, the role of the contemporary officer has grown to

include community-welfare aspects focused on public safety (Stenning & Shearing, 2005). This may result in community-based structures being the foundation for effective public safety instruction that must be modified and accommodated to meet the specific needs of individuals with ID. To advance the rights of individuals with ID in society and policy development, it is critical that first responders' perspectives be examined to determine best practices to implement in disastrous situations.

There is also a growing need for research at the intersection of ID determination and forensic science, especially in relation to the measurement of adaptive behavior of individuals living in prisons, because assessing the present adaptive functioning of these persons to meet societal demands in the community is a tremendous challenge (Tassé et al., 2012). This need was made law when on June 15, 2017, Governor Greg Abbott signed Senate Bill 1849, more commonly known as the Sandra Bland Act, which addresses multiple issues for criminal justice in Texas, including identification of defendants suspected of having a mental health or an intellectual disability, as well as criteria for potential diversion to treatment instead of jail (Silver, 2017). There are other aspects of the Act that address jail safety, officer training, and data collection. With the proper resources and culturally responsive tools designed to align practices with legislation, first responders can possess the knowledge and skills needed for knowing what to do and what steps to take in a disaster, crisis, or an emergency involving individuals with ID and prevent violence before it happens.

There is no question that any school, community, work, or home setting has inherent risks and can be dangerous for individuals who do not know or have difficulty in

identifying and responding appropriately to risk stimuli (Agran & Krupp, 2010).

According to a pilot study of a group program designed to increase personal safety skills in adults with ID (Mazzucchelli, 2001), individuals with ID are more vulnerable to being the victims of crime than individuals of a comparable age without such a disability. They are also significantly more likely to be victims of assault, sexual assault, and robbery than individuals without ID (Wilson, 2016). For many, individuals with ID who encounter first responders are only accustomed to home and school operations, as with Ethan Saylor, a man with Down syndrome who was killed in Maryland in January 2013 (Perry & Carter-Long, 2016). Saylor's death was a turning point in the awareness of police violence, leading to policy and procedure seeking to serve the needs of both individuals with ID and first responders. Adding to the complexity of changing policy and procedure for better outcomes, Agran et al. (2012) found that safety skills instruction, in general, for students, does not appear to be a high priority, and these skills do not appear to be included in Individualized Educational Plans (IEPs), which should shed light on the need for appropriate public safety instruction.

The interactions of first responders and individuals with ID are crucial to all members of society. Public service systems for individuals with ID evolve over time by following philosophical trends that occur within the general society and with the field of ID (Brown et al., 2017). Insight into first responders' perceptions of providing public safety instruction to individuals with ID is valuable in building competent public service systems. Strong public service systems should also be capable of understanding and monitoring their own behavior, as safety is a highly valued expectation around the world.

This collection of first responders' perceptions about how to best provide public safety instructions to individuals with ID is arguably one of the first investigations to specifically ask police officers, firefighters, emergency management technicians (EMTs), social workers, school counselors, and Special Education teachers about public safety instruction. The results of this study provided much-needed insights about how to effectively work with individuals with ID, who possess high incident services with complex histories and diverse needs.

Purpose of the Study

The question of how to instruct individuals with ID to follow certain public safety procedures when engaging with first responders is quickly becoming an area of concern. Modern-day policing and other first-responding in society is becoming more complex, multifaceted, and sometimes dangerous occupations that now require comprehensive, community-based training for both individuals with ID and first responders. Although one may recognize the need for such training, recent community programs and current studies have not adequately addressed how the diverse group of individuals with ID themselves should be best instructed to interact with the diverse groups of first responders.

Collecting information about public safety is beneficial to the welfare of individuals with ID and can help identify gaps in public understanding that can be resolved through education and public information. Examining public safety instruction concerning ID issues must be part of standard ADA training for both first responders and individuals with ID. Without implementing and developing community-based practices,

individuals with ID will continue to be placed in situations within public sectors that they have not been prepared to handle. By closely examining what is perceived to be the interest of public safety instruction of first responders, this study sheds new light on the minutely recognized issue of training events that are geared towards individuals with ID.

As a teacher-researcher, I sought to analyze first responders' perceptions of public safety and ADA accountability of specialized support, services, and training when meeting the needs of individuals with ID in disasters. Knowing how to appropriately respond to dangerous situations from the perspectives of first responders will allow modifications in normal practices to accommodate an individual with ID. Therefore, the purpose of this quantitative survey study sought to (a) contribute to existing ID and safety knowledge by including groups of first responders and (b) study relationships between perceptions and demographic/professional characteristics. All in all, regardless of circumstances, law and policy ensure that first responders are inclusive and have a sense of valuing diversity in individuals with ID.

Research Questions

I investigated the following research questions: (a) based on objective ratings of the PSIID-Q, were there significant differences among first responders' perceptions (ADA awareness, confidence, attitude, strategy) of public safety instruction for individuals with ID, and (b) what was the predictive relationship between first responders' ADA awareness and preparedness (confidence, attitude, strategy) for public safety instruction for individuals with ID?

CHAPTER II

LITERATURE REVIEW

Review Criteria

From the recommendations of experts in ID, from textbooks, websites, and other published literature, I examined the literature for guidance on each of the following key terms: *intellectual disability*, *public safety*, *Americans with Disabilities Act*. Given the depth of this review, I relied heavily on existing reviews of the literature and a few current studies to illustrate best practices. I considered any article or individual study published in a peer-reviewed journal or on a public organization's website. The evidence offered here also varied in quantity. Some practices involving the combination of *intellectual disability* and *safety* (e.g., behavioral skills training, video modeling) had vast amounts of literature while others had fewer studies (e.g., first responders, confidence, attitude).

A Framework for Responding

To fully understand to what extent perception affects public safety instruction for individuals with ID, one must look at the many characteristics of someone's identity (Villa-Nicholas, 2018). The neurodiversity paradigm suggests that we take the positive attitudes and beliefs that most people hold about biodiversity and cultural diversity and apply them to differences among human brains (Armstrong, 2012). A neurodiversity perspective stresses that "everyone has a different mind, a different way of being," and that we should not "suppress these differences [but] accept and support them" (Camley,

2005, poster). Increasing neurodiversity entails accommodating the differences in cognitive abilities and acknowledging, including, building, and celebrating the valuable perspectives of neurodivergent individuals, especially those with ID, by teaching them how to adapt using an ecological framework.

Understanding an ecological framework of individuals with ID and knowing how to operate in their environments are critical to how this at-risk population responds to a world they can barely comprehend. Hunt et al. (2012) suggest the use of an ecological framework to guide stakeholders to maintain a clear focus on individual needs as they provide access to general instruction for vulnerable populations. Other researchers suggest the term, *Personally Relevant*, as a reference to adaptations made within the ecological framework to receive individualized support (Trela & Jimenez, 2013). In a social-ecological framework, Dahlberg and Krug (2002) insist that the goal is to prevent violence before it begins. Therefore, prevention requires understanding the factors that influence crises and lead to disasters. From these theoretical foundations, public safety instruction for individuals with ID is to be addressed by interacting with social, cultural, historical, legal, and medical discourses, as well as further complicating factors such as race, ethnicity, gender, age, and class (Connor & Ferri, 2005).

Definitions

Before describing public safety instruction for individuals with ID, it is imperative to clarify the definitions of terms related to this study.

The Americans with Disabilities Act of 1990

The ADA is a civil rights law that prohibits discrimination based on disability. It affords similar protections against discrimination to Americans with disabilities as the Civil Rights Act of 1964, which made discrimination based on race, religion, sex, national origin, sexual orientation, and other characteristics illegal. Unlike the Civil Rights Act, the ADA makes accessibility requirements on public accommodations. ADA extends protection against discrimination to the full range of state and local government services, programs, and activities including public schools regardless of whether they receive any Federal financial assistance (U.S. Department of Justice, 2020).

In 1986, the National Council on Disability had recommended the enactment of an ADA and drafted the first version of the bill which was introduced in the House and Senate in 1988. The final version of the bill was signed into law on July 26, 1990, by President George H. W. Bush. It was later amended in 2008 and signed by President George W. Bush with changes effective as of January 1, 2009. The Americans with Disabilities Act Amendments Act (ADAAA) made several significant changes to the definition of “disability.” The ADA National Network (2021) reflects the changes in the definition of disability in the ADAAA as they apply to all titles of the ADA, including: Title II (programs and activities of state and local government entities) and Title III (private entities that are considered places of public accommodation).

ADA Awareness

ADA awareness is defined as cognizance relating to the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (Stevens et al., 2018). ADA

awareness is when first responders are familiar with reasonable modifications in their policies, practices, and procedures that are necessary to ensure accessibility for individuals with disabilities, unless making such modifications would fundamentally alter the program or service involved (Department of Justice, 1991).

Disability

According to the ADA of 1990, an individual with a disability is defined as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person perceived by others as having such an impairment. Disability includes impairments, activity limitations, and participation restrictions. Types of disabilities include physical disability like paralysis and amputation, cognitive disability like ID or ASD, and sensory disability like blindness or deafness (National Association of County and City Health Officials [NACCHO], 2014).

Disasters

According to the Texas Disaster Act of 1975, *disaster* means the occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property resulting from any natural or man-made cause, including fire, flood, earthquake, wind, storm, wave action, oil spill or other water contamination, volcanic activity, epidemic, air contamination, blight, drought, infestation, explosion, riot, hostile military or paramilitary action, extreme heat, cybersecurity event, other public calamity requiring emergency action, or energy emergency. Disasters are frequently defined as potentially traumatic

events that are often overwhelming and sudden and experienced collectively (International Federation of Red Cross and Red Crescent Societies [IFRC], 2013).

First Responder

First responder can be best described as someone whose job is to respond immediately (first) when there is a disaster. It is popularly used to refer to “law enforcement, fire, and emergency medical personnel, especially after the events of September 11, 2001” (Bricker, et al., 2013, p.1). According to the Homeland Security Digital Library (2016), *first responder* is used consistently in the laws enacted by Congress, from 2002 to the present, to mean Federal, state, and local governmental and nongovernmental emergency public safety, fire, law enforcement, emergency response, emergency medical, and related personnel, agencies, and authorities. For this study, I referred to both governmental and nongovernmental *first responders* as public safety personnel including law enforcement, fire, emergency response/medical, and related agencies in local education and social work.

Frontline First Responders

Frontline first responders generally consist of nurses, paramedics, EMTs, ambulance drivers, firefighters, police officers, 911 dispatchers, and medical and frontline personnel. For this study, EMTs, firefighters, and police officers are referred to as first responders in Group A who perform their duties on the frontline.

In-School First Responders

In-school first responders usually consist of principals, school counselors, general education teachers, and Special Education teachers who as immediate responders are

already within a disaster as they wait for public safety personnel to reach them to receive aid. For this study, school counselors and Special Education teachers are referred to as first responders in Group B because of them being employed in the school setting.

First Responders as Social Workers

Social workers address crises regularly and without a police officer standing in front of them (Guevara & Winfield, 2020). They have also been referred to as forgotten or invisible first responders. Consequently, their training and skills are essential in supporting mental health, the family, schools, and individuals with ID. For this study, social workers consist of first responders in Group C who perform social work duties.

Intellectual Disabilities

Acknowledging that the power of language propels, rather than impedes, positive perceptions of individuals with disabilities, in 2010 President Barack Obama signed Rosa's law (Pub. L. 111-256), to replace the term *mental retardation* with *intellectual disability* in all Federal legislation. The definition of *intellectual disability* includes three key criteria: (a) intellectual functioning; (b) adaptive behavior; and (c) age of onset. Even though the term and definition of ID have changed over the last decades, the definitions have consistently included these key criteria (The American Association of Intellectual and Developmental Disabilities [AAIDD], n.d.) which are explained as follows.

Intellectual Functioning

Intellectual functioning—also called intelligence—refers to general mental capacity, such as learning, reasoning, and problem solving. One way to measure

intellectual functioning is an IQ test. Generally, an IQ test score of around 70 or as high as 75 indicates a limitation in intellectual functioning (Papazoglou et al., 2014).

Adaptive Behavior

Adaptive behavior is defined as the collection of conceptual, social, and practical skills that have been learned and are performed by people in their everyday lives (Schalock et al., 2010). Specifically, adaptive impairment is defined as follows (American Psychiatric Association, 2013):

Deficits ... that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility (p. 33). [The criterion] is met when at least one domain of adaptive functioning— conceptual, social, or practical—is sufficiently impaired that ongoing support is needed in order for the person to perform adequately in one or more life settings at school, work, home or in the community (p. 38).

Public Safety

According to USLegal, Inc. and as it pertains to this study, *public safety* refers to the welfare and protection of the public and the reactionary measures to call for aid in a dangerous situation when it occurs. Public safety is usually expressed as a governmental responsibility. Most states have departments for public safety. The primary goal of the department is prevention and protection of the public from dangers affecting safety such as crimes or disasters. In many cases the public safety division is composed of individuals from other organizations including police, emergency medical services, fire force, etc.

Public Safety Instruction

A search returned 57 articles when the terms *public safety* and *disability* were entered into the TWU databases. Initially, when the keywords were entered into the search engine, no results were found in the EBSCOHost databases. The search returned suggestions for *public safety* or *crime prevention* or *law enforcement*. The articles were analyzed for specific terms and definitions of public and safety skills being taught to individuals with ID. As determined from the results, researchers in the United States have placed much focus on skills related to *personal* safety; however, there is a small amount of literature in the context of *public* safety skills in other countries. Table 2 represents the frequency and percentage of safety skills by type found in this literature review.

Based on existing research literature, public safety instruction should be designed and implemented with the notion of building personal safety and confidence-building skills with the use of evidence-based practices. In a previous study by Lunskey and Elserafi (2011), individuals with ID who experienced life events were more likely to visit the emergency department in response to crisis relative to those who did not experience life events. To identify practices for review, I cross-referenced recommendations within the research literature. In this section, I identified the safety skills and practices explored in these resources. Whether evidence-based practices were applied were also considered.

Table 2*The Frequency and Percentage of Safety Skills by Type.*

Safety Skill	<i>n</i>	Percentage
Basic Life (CPR, AED)	1	1.75
Child abuse	1	1.75
Community	3	5.26
Crime Prevention	1	1.75
Decision making	1	1.75
Emergency phone calls	5	8.77
Fire safety	5	8.77
Firearm	3	5.26
First aid	6	10.53
Handling broken materials	1	1.75
Home accident prevention	3	5.26
Independent living	1	1.75
Pedestrian	4	7.02
Personal	2	3.51
Potential liquid poison	2	3.51
Product warning labels	2	3.51
Protective behaviors (social)	3	5.26
Response to strangers	7	12.28
School safety	1	1.75
Seeking adult attention	2	3.51
Sexual abuse	3	5.26
Total	57	100%

What to Teach?

Individuals with ID are more vulnerable to criminal activity, both as victims or offenders, in that they are less likely to perceive social cues to danger, and more likely to place misguided trust in others, act compliantly in the wrong situations, and be perceived by others as easy targets (Modell & Mak, 2008). Interventions that aim to help individuals develop and strengthen psychosocial skills (e.g., conflict resolution, social-emotional, behavioral regulation) and involve both instructor and caregiver(s) hold promise for facilitating successful adjustment for individuals with ID. Although their use is critical, infrequent occurrence is of concern when teaching trials must be limited while waiting on natural opportunities to occur, so one can practice the skills (Mechling, 2008). In a review of the literature, two main concerns were where and how to safely teach safety skills while providing examples which closely resemble actual situations in which they will be needed. Practice of some personal safety skills (e.g., crossing dangerous pedestrian intersections) in a safe environment, prior to in-vivo instruction, where training is conducted with actual materials under normal environmental conditions, was found to be necessary.

How to Teach It?

Public safety instruction should be designed with the target goal of building personal safety and confidence-building skills with the use of evidence-based practices. It has been a long-standing goal in education and psychology to prepare individuals with ID to be active, contributing members of the community, which includes ways and means to teach and support independence and to practice certain safety skills (Kearney et al., 2018). In a recent review of the literature, few studies used in-vivo assessment to measure generalization of personal safety skills to real life, community-based situations (Kim, 2010). Additionally, more in-vivo assessments of generalization are recommended to evaluate effectiveness of instructional programs that target safety skills (Dixon et al., 2010).

Furthermore, video technology was found to be a possible way to provide realistic examples of unsafe stimuli (Mechling, 2008) and multiple views of situations that cannot be efficiently created in real life situations (Self et al., 2007). To meet the challenge of defining culturally responsive public safety instruction, first responders must consider using innovative, evidenced-based practices, like the ones in this literature review, that focus on enhancing active learner responding and ensuring equal participation of all individuals. Table 3 provides an overview of case studies on the interventions of teaching safety skills to individuals with ID in the community, which can better explain other reasons researchers sought to teach a specific ID safety skill.

Table 3*Quantitative Studies on the Intervention of Teaching Public Safety Skills to Individuals with ID*

Reference	Design	Instrument	Safety Skill	Findings
Bassett et al. (2016)	MP across participants	VM	Community	VM was effective and teaching sending a picture independently across multiple community sites.
Fisher (2014)	MB across participants	BST	Stranger	BST was effective in increasing safety skills but was not demonstrated consistently across participants.
Mechling et al. (2009)	MP across 3 behaviors, replicated across 3 participants	VM	Fire	VM was effective in acquisition of fire extinguishing skills and generalized to novel examples with maintenance and performance when absent.
Miltenberger et al. (2009)	MB across participants	BST & In-situ assessment	Personal	BST and IST effective and teaching how to engage in a fire safety behavior assessment in naturalistic conditions.
Purrazzella & Mechling (2013)	MP across participants	Smartphone with VC	Community	VM of adult lost while operating the iPhone was effective with instructor prompting and photograph prompts.
Rossi et al. (2017)	Non-concurrent MB across participants	BST and MET	Safety	BST was effective in demonstrating an appropriate safety response to training stimuli in responding to firearm, fire starting, and potential liquid poisons.
Spivey & Mechling (2016)	MP across 3 sets of scenarios; 3 participants	VM with CTD	Social	VM was effective in teaching social safety skills in a simulated environment to teach how to escape from a dangerous situation when occurring.
Stock et al. (2008)	Standard within subject	Cognitively accessible CP typical CP	Social usability accessibility of CP	A specialized prototype CP system was effective in making and receiving calls as compared with a mainstream Nokia CP.

Note. BST = behavioral skill training, CTD = constant time delay, CP = cell phone, IST = in situ training, MET = multiple exemplar training, VC = video captioning, VM = video modeling

How to Support It?

The question of how to train first responders in providing individuals with ID with necessary resources needed to follow certain public safety procedures is quickly becoming an area of concern for all parties involved. As a result, a 2011 survey found that 76% of responding states did not mandate any disability specific training outside of the initial academy training which equates to approximately 1% of the total training requirements (Meade, 2019). Moreover, child development, behavior management, communications strategies, and dealing with individuals with disabilities were not included in the minimally provided training (Ryan et al., 2018). Because of already existing limited support systems available in the community, individuals with ID need additional supports that will help them transition within their environment and whenever they are encountered by first responders.

Previous literature also portrays communication difficulties associated with and experienced by first responders and individuals with disabilities as a significant challenge (Viljoen et al., 2016). These difficulties may contribute to incomplete information gathering from victims with disabilities and compromise the apprehension and prosecution of perpetrators. Considering the results of research, evaluation, and consultation throughout the educational field, the principles for ensuring safe and successful learning environments have been determined to be: (a) create positive climates and focus on prevention; (b) develop clear, appropriate, and consistent expectations and consequences to address disruptive behaviors; and (c) ensure fairness, equity, and continuous improvement (U.S. Department of Education, 2014).

First Responders' and Public Safety for Individuals with ID

As mentioned by James (2017), the stereotypes of individuals with ID are numerous and include several stereotypical attributes, such as individuals with ID are not competent or capable; are childish and dependent on others; lack a potential for change; and are aggressive or emotionally unstable. Given the detrimental effects stereotypes, prejudice, and discrimination can have on individuals of a stigmatized group, the stigmatization of individuals with ID is important to explore. Also, literature suggests that attitudes of professionals are one of the biggest barriers to individuals with ID receiving equitable access to services and that these stereotypes lead to emotional reactions, such as feelings of pity, discomfort, and fear towards individuals with ID as well as the sentiment that one needs to “parent” or take care of individuals with ID (Lewis & Stenfert-Kroese, 2010). Complicating the intentional process of accessibility requirements to accommodations is the training needs of mainstream professionals to support or prepare them for working with individuals with ID. On the contrary, there are some studies in the United States that have found that service providers hold more positive attitudes toward people with ID than community members, and that this difference may be related to the extent of their contact with people with ID (Patka et al., 2013).

Three main themes were identified as they related to the literature review of ID: general communication, knowledge/information, and profession specific (Hemm et al., 2015). Intentional specially designed training programs that focus on acquiring knowledge about individuals with ID can lead to positive results. Knowing the characteristics of individuals with ID can help first responders and service providers

comprehend the barriers that these individuals face; better recognize and respond to those challenges; and obtain a more informed perspective of social, familial, and individual contexts (Child Welfare Information Gateway, 2018). The responsibility to develop services and support the living conditions for better outcomes for individuals with ID has prompted researchers to experiment with technological advances, community-based instruction, behavioral skills training, and multiple exemplar training, which have found to be all efficient and meaningful in both the school setting and in the community setting. In summary, it is important that first responders be mindful of some individual's culturally linguistically diverse backgrounds, who may need prompting, guidance, and immediate feedback to achieve certain expectations (Kourea et al., 2018).

CHAPTER III

METHODOLOGY

Introduction

Many times, first responders may have multiple roles, whether duties are performed in a paid or voluntary position. For example, the first responder may be part of a fire department, which may also include the requirement of being an EMT. As part of this study, based on professional characteristics, first responders were categorized into three groups. I combined police officers, firefighters and EMTs into Group A and considered them as frontline first responders of most disasters. School counselors and Special Education teachers were categorized into Group B based on their roles and responsibilities of developing individual emergency and lockdown plans when providing procedures for explicit instruction and needed support for students with disabilities during a crisis at school. Lastly, since social workers are many and far, I had categorized them into Group C due to their unique characteristics of serving individuals with ID both inside the home and outside the home. The applicability of first responders' relationships with individuals with ID and the survey study methodology are discussed in this chapter. The study was completed after approval from Texas Woman's University Institutional Review Board (IRB). The following chapter identifies the participants, measures, data collection procedures, and data analyses of the study.

Participants

The participants for this study consisted of first responders from police departments, fire departments, colleges and universities, local education agencies (LEAs), and the State's Department of Health and Human Services who engaged with and provided safety instruction for individuals with ID. Before being divided into three equal groups, a list of potential participants was compiled from municipalities' websites within North Texas. Those participants were asked to recruit colleagues, friends, and family members who were also first responders by forwarding the recruitment letter embedded in the email sent to them. First responders who were also members on LinkedIn, a social media platform, were also asked to participate.

Instrument Construction

Part of this study was to develop an effective instrument to measure differences in first responders' perceptions of public safety instruction for individuals with ID with reliable predictors of professional characteristic factors. To better understand the implementation of public safety practices in the United States, with regards to the treatment of individuals with ID, a cross-sectional study was conducted. This study utilized a portion of one previously published survey to assist in developing *The Public Safety for Individuals with Intellectual Disabilities-Questionnaire* (PSIID-Q; see Appendix A) assessment, which was used to examine first responders' perceptions of public safety instruction toward individuals with ID.

In a current study, Stevens (2018) explored post-secondary faculty perceptions of awareness and preparedness relating to ADA. I sent an email to Dr. Chad M. Stevens at

chad.stevens@keystone.edu requesting permission to use parts of the ADA Faculty Questionnaire (ADAFQ; see Appendix B). Dr. Stevens responded to the email request granting permission to use the ADAFQ instrument. The ADAFQ was adapted from several non-experimental instruments located in the research literature. The ADAFQ was used to obtain demographic information such as age, gender, employment status, level of education, ADA awareness and ADA preparedness. Because the ADAFQ was new and was used for the first time there was no reliability.

Quantifying the impact of survey fatigue, such consideration was also useful in constructing the PSIID-Q assessment, especially in a society where individual institutions are grappling with demands for surveys from numerous internal constituencies (Porter et al., 2004). The PSIID-Q assessment was originally composed of a total of 39 questions to maintain an acceptable ratio of items per participant being 1:4. If the survey had included a plethora of questions, respondents may not have wanted to complete the survey and may have answered questions inaccurately.

With the platform of an online survey, an advantage was the accessibility for participants to complete the survey on their smartphone or tablet, so included participants with limited or no available computers had other methods of completing the survey. Another advantage in the decision to administer an online survey was that it required participants to answer a given question before proceeding to the next. Skip question logic was only used when obtaining identifiable information for a gift card drawing. Acknowledging that online surveys have a low response rate for a variety of reasons, I

offered an incentive to increase participation. According to existing research, monetary or gift incentives significantly increase survey response rate (Neutens & Robinson, 2013).

Reliable Predictors

Participants' total scores on the PSIID-Q assessment were considered as the first dependent variable, which aimed to measure groups of first responders' perceptions. A second dependent variable, Awareness, was used to create a numeric score of first responders' awareness of ADA requirements for individuals with ID. Subscale I responses were recorded as follows: *1 = Not familiar at all, 2 = Slightly familiar, 3 = Very familiar, 4 = Extremely familiar*. An Awareness score was determined by producing a sum of these questions and comparing the mean to other groups.

A third dependent variable, Confidence, was created to produce a score to determine first responders' levels of confidence concerning their roles and responsibilities when working with individuals with ID. Subscale II responses were recorded as follows: *1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Somewhat Agree, 4 = Strongly Agree*. A Confidence score was determined by producing a sum of these questions.

A fourth dependent variable, Attitude, was created to produce an Attitude score to determine first responders' attitudes towards individuals with ID. Subscale III responses were recorded as follows: *1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Somewhat Agree, 4 = Strongly Agree*. An Attitude score was determined by producing a sum of these questions.

The fifth and final dependent variable, Strategy, was used to create a numeric score of first responders' use of response strategies when engaging with individuals with ID. Responses for Subscale IV were recorded as follows: *1 = Definitely Not*, *2 = Probably Not*, *3 = Probably Yes*, *4 = Definitely Yes*. A Strategy score was determined by producing a sum of these questions.

Validity and Reliability

The PSIID-Q scale has content and face-validity. Experts were contacted and provided the questionnaire for review and approval. Two faculty members with doctorates in Special Education and teaching experience in Special Education including the ADA and Section 504 of the Rehabilitation Act of 1973, assessed the survey. Two statisticians also assessed the survey. Expert feedback regarding contextual, physical, and sensory accessibility was incorporated into the survey. The revised survey was converted to a free online survey website (i.e., PsychData). Lastly, the PSIID-Q consisted of five components: demographic and professional characteristics of participants, ADA requirement statements, attitudinal statements, statements about confidence, and statements concerning strategy. The demographic and professional components, such as age, gender, job description, years of working with individuals with ID, and their experiences, were assessed in detail.

As mentioned above, the validity and reliability of the PSIID-Q instrument comes from a study examining ADA awareness, as well as from my own research and experiences of working with individuals with ID. This study included content validity, which involved professional, objective ratings on how much they agreed with a given

statement on the PSIID-Q in the intended domain. It was tested using factor analysis and reliability analysis. Thirty-eight items from five sections: (a) awareness of ADA (1990), (b) confidence levels of first responders, (c) attitudinal statements, (d) the use of targeted response strategies, and (e) professional and demographic characteristics were designated for the initial instrument based on the PSIID-Q as a new conceptual model. Twenty-eight items remained in the final questionnaire after deleting items which cross-loaded on multiple factors. The four-subscale construct of the PSIID-Q instrument were confirmed through this study. First responders were able to use the PSIID-Q instrument to gain a better understanding of their level of ADA awareness and preparedness in public safety instruction when working with individuals with ID.

Delivery and Collection of Survey

To deliver and collect the survey, email addresses from the state and local agencies' websites were used. A minimum of 100 first responders' email addresses were collected at first. In collecting the email addresses, a list of all surrounding agencies in the North Texas area was compiled. I went to each municipality's website and compiled a list of emergency management services (EMS), LEAs, and the State's Health and Human Service departments. To protect the identity of police officers and their families, email addresses were not available as public information. From a community town hall meeting, I collected the email addresses of two chiefs of police and one assistant chief of police, in which I later requested for them to distribute the survey within a total of three surrounding area police departments. Once the list detailing each agency was completed, I entered the emails into an Excel spreadsheet to contact each possible participant

individually and included the survey link. The email contained the recruitment letter and the link to the entire survey (see Appendix C), as well as my contact information and information regarding the drawing of a gift card for those who participated in the survey. Funds for the gift card drawing were funded by a grant from the Jane Nelson Institute for Women's Leadership.

In addition to emailing, I utilized social media as a digital platform to post an advertisement on the LinkedIn page requesting any first responders to complete the survey. I posted a short description of the survey and the survey link to the PsychData website that took the participant to the survey itself. The survey remained live for 14 days. Once collected, coded, and analyzed, the data were stored using a locked file on my computer that will be password protected and kept for a minimum of 6 years.

Measures

Independent Variables

RQ1: The independent variable for Research Question One was identified as a group of first responders based on professional characteristics (job title [frontline first responders, in-school first responders, first responders in social work]).

RQ2: The independent variable for Research Question Two was identified as ADA awareness, the predictive factor.

Dependent Variables

RQ1: Dependent variables, in Research Question One, were represented utilizing one composite total scale score (Perception) and four subscale measures: (a) ADA Awareness score, (b) Confidence score, (c) Attitude score, and (d) Strategy score on the

PSIID-Q survey. Respondents were considered to have a high perceived interest in the use of public safety instruction for individuals with ID if they reported high scores. Subscale variables were categorized as low as (score 1 – 2) and as high as (score 3 – 4).

RQ2: The dependent variables in Research Question Two were confidence, attitude, and strategy. Predictive relationships were considered to have a high correlation if awareness of ADA highly predicted confidence, attitude, and strategy.

Data Analysis

PSIID-Q responses from frontline first responders, in-school first responders, and first responders in social work were compared based on the research questions. I used statistical software, Statistics Package for the Social Science (SPSS) version 25, to analyze the data collected. I calculated descriptive statistics (i.e., frequencies, percentages) to examine participants' demographics, and professional characteristics. I first inputted the data into SPSS, and then checked for errors and missing and/or invalid values using the frequencies procedures.

To test the resulting change in the dependent variables in Research Question One, I performed an analysis of variance (ANOVA) to determine if there were statistically significant differences in ADA awareness, confidence, attitude, and strategy subscale ratings among the three groups of first responders on the PSIID-Q, with Bonferroni adjustments being utilized to account for increased Type I error associated with multiple pairwise comparisons. The participants in each of the three groups were not the same individuals, making the independent sample's *t*-test the most appropriate because it compared the mean scores of each group independent of the other. Lastly, it was

hypothesized that significant differences would exist in first responders rating objective statements about their perceptions of public safety instruction for individuals with ID.

Research Question Two examined the relationship between ADA awareness on the other three subscales of the PSIID-Q: confidence scores, attitude scores, and strategy scores. Simple linear regressions were conducted to evaluate to which ADA awareness predicted first responders' preparedness (confidence, attitude, strategy). Pearson correlations were run as a preliminary analysis to determine relationships between variables of the study. Lastly, it was hypothesized that these variables would be moderately correlated.

Participants who did not complete data on the independent variables were excluded from the analyses. I tested all variables for missing values, outliers, violations of normality, skew and kurtosis. A level of significance of .05 was used to identify variables that had a significant influence on the dependent variables. If the independent samples *t*-tests produced *p* values of less than .05, then there was a statistically significant difference in the mean scores among frontline first responders, in-school first responders, and first responders in social work. If regression results produced *p* values of less than .05, then ADA awareness significantly predicted first responders' confidence, attitude, and strategy. A statistically significant result simply meant that a difference in the data existed due to something other than chance.

CHAPTER IV

RESULTS

Introduction

The results of this study examining first responders' perceptions of public safety instruction for individuals with ID were presented in this chapter. These were organized based on the responders' demographic and professional characteristics, including their awareness and preparedness for delivering services within their organizations.

Hypotheses

H1: There were statistically significant differences in the objective ratings of groups of first responders (frontline first responders, in-school first responders, first responders in social work) and their perception (ADA awareness, attitude, confidence, strategy) of public safety instruction for individuals with ID.

H2: There was a predictive relationship between first responders' awareness of ADA and preparedness (confidence, attitude, strategy) when providing public safety instruction for individuals with ID.

Data Screening

The data analysis consisted of three stages: (a) the data preparation stage, (b) the preliminary analysis stage, and (c) the primary analysis stage. Before analyzing the data with SPSS, the surveys were prescreened for missing data. In the data preparation stage, I entered the data into SPSS and then checked for errors, outliers, invalid cases, and

missing values using the frequencies procedures in SPSS. Of the original 424 cases, six cases (1.41%) were duplicate cases and were removed; 52 cases (12.26%) were removed for those participants who took less than two seconds per item on the survey; 38 cases (8.96%) were removed for displaying zero variance across items; 10 cases (2.36%) were removed for inputting invalid data. A total of 318 cases (75%) were used for the final analysis. Categorical variables were checked for equal distribution, while continuous variables were checked for normal distribution using descriptive statistics.

Factor and Reliability Analyses

Factor Analysis

The second stage in the data analysis was the preliminary analysis stage. In this stage, Cronbach's alpha was computed, along with factor analysis. The questions were factored, removed, analyzed using principal axis analysis with varimax rotation. Principal axis analysis with varimax rotation was used because the primary purposes were to recover weak factors and to display a close representation of observed correlations between variables by latent factors within the central construct on the PSIID-Q. Then, the factorability of the 32 PSIID-Q subscale items was examined, providing a ratio of almost 10 cases per variable.

The following 11 items were extracted because of cross loadings: Q17 I am confident in communicating with dispatchers and medical staff about the condition of incoming individuals with intellectual disabilities; Q20 I am confident in collaborating with social services for individuals with intellectual disabilities; Q23 I can identify individuals with intellectual disabilities from other individuals without disabilities; Q24

Responding to calls involving individuals with intellectual disabilities takes up a fair share of time; Q25 Individuals with intellectual disabilities deserve special consideration and treatment.; Q27 Investing in intervention for individuals with intellectual disabilities is necessary; Q29 It is better that individuals with intellectual disabilities live independently; Q30 Individuals with intellectual disabilities can benefit from public safety instruction; Q31 I have arranged a calm setting for an individual with an intellectual disability; Q35 I have the individual with an intellectual disability repeat the information or ask questions; and Q38 I listen to what is said and what is not said by individuals with intellectual disabilities. After extraction, it was observed that 21 items from the four subscales correlated at least .3 variance with at least one other item, suggesting reasonable factorability. The factor analysis with four fixed predictive factors explained a total of 53.34% of the variance for the entire set of variables. Suppressed coefficients that were less than .3 are not shown (see Table 4).

The first factor was labeled ADA Awareness due to the high loadings of the following items: (a) familiarity with modifying policies, practices, and procedures; (b) familiarity with the degrees of ID; (c) familiarity with the meaning of ID; (d) familiarity with the difficulty in communication that individuals with ID may experience; (e) familiarity with ADA; (f) familiarity with responsibility in providing ADA accommodations at work; (g) familiarity with agency's legal obligation in providing accommodations; (h) familiarity with the process of providing informal accommodations to individuals with ID; and (i) understanding requirements to provide services to

individuals with ID even if they do not request it. This first factor explained 39.69% of the variance.

Table 4

Summary of Factor Analysis

Variable	Question Number	Factor loading				Commonality
		ADA Awareness	Confidence	Strategy	Attitude	
ADA awareness	7	.737				.666
	8	.742				.675
	9	.692				.588
	10	.652				.527
	11	.726				.652
	12	.751				.687
	13	.707				.638
	14	.751				.718
	15	.537				.466
Confidence	16		.553			.408
	19		.487			.485
	21		.571			.555
	22		.736			.656
Strategy	18			.518		.479
	26			.673		.485
	28			.531		.408
	34			.558		.505
	36			.472		.404
Attitude	32				.552	.389
	33				.566	.427
	37				.410	.386
SS loadings		8.34	1.48	.85	.54	
Proportion Variance		39.69	7.06	4.04	2.56	
Cumulative Variance		39.69	46.75	50.79	53.34	

The second factor was labeled Confidence. This factor was labeled as such due to the high loadings by the following items: (a) confidence in administering life support care and first aid to individuals with ID; (b) confidence in restoring public order when individuals with ID are involved; (c) confidence in treating behavioral problems among individuals with ID; and (d) confidence in addressing psychiatric problems among individuals with ID. The variance explained by the second factor was 7.06%.

The third factor derived a variance of 4.04%. Factor three was labeled Strategy due to the high loadings by the following factors: (a) confidence in providing in-person instruction in settings dedicated to individuals with ID; (b) belief that individuals with ID can cause harm to themselves or others; (c) belief that individuals with ID require specialized accommodations; (d) practice of speaking slowly and distinctly, using simple language and repeating,; and (e) use of visual aids when interacting with individuals with ID.

The fourth factor derived was labeled Attitude. This factor was labeled as such due to the high loadings by the following variables: (a) first responder identifying self when encountering an individual with ID; (b) first responder stating purpose when responding to an individual with an ID; and (c) first responder observing nonverbal behavior of individuals with ID. The variance explained by factor four was 2.56%.

The communalities of the variables included were rather high overall with the lowest variable (I observe nonverbal behavior of individuals with intellectual disabilities) having the smallest amount of variance (39%) in common with the other variables in the analysis. This indicated that the variables chosen for this analysis were moderately

related with each other. Additionally, the Kaiser-Meyer-Olkin and Bartlett's Test of Sphericity both indicated that the set of variables were at least adequately related for factor analysis, with KMO measure of sampling adequacy being .93, above the commonly recommended value of .6. Bartlett's test of sphericity, which tests the overall significance of all the correlations within the correlation matrix, was significant ($\chi^2 = 3333.41, p < .001$), indicating that it was appropriate to use the factor analytic model on this set of data. Substantially, this means that I have identified four clear patterns of perceptions toward public safety instruction for individuals with ID among respondents: (a) pattern of being aware of ADA requirements, (b) pattern of being confident, (c) pattern of having a positive attitude, and (d) pattern of using effective strategy. These four tendencies are independent of one another (i.e., they are not correlated).

Table 5 summarizes the detailed reliability analysis. The reliability coefficients for all 21 items are displayed as Chronbach's alphas based on the assumption that all of the items had equal variances. An Alpha score above .75 is generally taken to indicate a scale of high reliability, .5 to .75 is generally accepted as indicating a moderately reliable scale, while a figure below this generally indicates a scale of low reliability (Hinton et al., 2004). The ADA Awareness subscale consisted of nine items ($\alpha = .93$), the Confidence subscale consisted of four items ($\alpha = .79$), the Strategy subscale consisted of five items ($\alpha = .78$), and the Attitude subscale consisted of three items ($\alpha = .65$).

Table 5*Summary of Reliability Analysis*

Variable	Question Number	Corrected item-total correlation	Cronbach's α if item is deleted	Cronbach's α
ADA awareness	7	.779	.917	.928
	8	.770	.918	
	9	.739	.919	
	10	.679	.923	
	11	.753	.918	
	12	.786	.916	
	13	.725	.920	
	14	.797	.915	
	15	.594	.928	
Confidence	16	.544	.772	.794
	19	.598	.746	
	21	.597	.747	
	22	.679	.704	
Strategy	18	.579	.728	.778
	26	.544	.740	
	28	.530	.745	
	34	.577	.730	
	36	.533	.744	
Attitude	32	.436	.584	.648
	33	.494	.501	
	37	.447	.567	

Demographic Information

The participants reported the gender in which they identified on the demographic section of the survey. Of the total 318, it was reported that 50.6% ($n = 161$) of first responders who took the survey were male, 48.7% ($n = 155$) of the first responders were female, and 0.6% ($n = 2$) preferred not to identify their gender. For the 106 frontline first responders, 73.6% ($n = 78$) were male; 25.5% ($n = 27$) were female; and .9% ($n = 1$)

preferred not to disclose gender. Of the 106 in-school first responders, 20.8% ($n = 22$) were male; 78.3% ($n = 83$) were female; and .9% ($n = 1$) preferred not to answer about gender. Interestingly, of the 106 first responders in social work, 57.5% ($n = 61$) were male and 42.5% ($n = 45$) were female.

Participants selected the profession that characterized their current job title. Of the sample reported, 33.3% ($n = 106$) identified themselves as social workers; Special Education teachers comprised of 17.3% ($n = 55$) of participants; 16% ($n = 51$) of participants were identified as school counselors; 14.8% ($n = 47$) stated that their current occupation was as a police officer; firefighters made up 10.4%, ($n = 33$) while EMTs accounted for 8.2% ($n = 26$) of the sample. To obtain an even distribution of the categorical variables related to current occupation, I compared the results of data based on a grouping variable that relied on the setting in which first responders performed their duties. As a result, first responders were classified into three groups to obtain an even number of respondents consisting of 106 participants each: (a) *frontline* first responders (EMTs, firefighters, police officers), (b) *in-school* first responders (school counselors, special educators), (c) first responders in *social work* (social workers).

Table 6*Descriptive Demographic Characteristics of Sample*

Variable			<i>n</i>	%
First Responder	Frontline	EMT	26	8.2
		Firefighter	33	10.4
		Police Officer	47	14.8
		Total	106	33.4%
	In-school	School Counselor	51	16.0
		Special Educator	55	17.3
		Total	106	33.3
	Social Work	Social Worker	106	33.3
		Total	318	100%
Training	Frontline	Yes	94	88.7
		No	12	11.3
		Total	106	100%
	In-school	Yes	99	93.4
		No	7	6.6
		Total	106	100%
	Social Work	Yes	97	91.5
		No	9	8.5
		Total	106	100%
Years of experience working with individuals with ID		0 – 5	225	70.75
		6 – 10	41	12.89
		11 – 15	30	9.43
		16 – 20	8	2.52
		21 – 25	6	1.89
		26 – 30	5	1.57
		31 – 35	3	.94
		Total	318	100%
Number of times a service was provided to an individual with ID from Jan-Nov 2020		0 – 20	244	76.73
		21 – 40	26	8.18
		41 – 60	24	7.55
		61 – 80	3	.94
		81 – 100	17	5.35
		101 or more	4	1.26
		Total	318	100%

The targeted first responders ranged in age from 20 to 64 years old with a mean age of 33.15 ($SD = 8.0$) years. I also gathered information about whether the first responders received training related to individuals with ID. A total of 91.2% ($n = 290$) of participants had ID training, while 8.8% ($n = 28$) reported receiving no training related to individuals with ID. Of the 106 frontline first responders, 88.7% ($n = 94$) had training. Of the 106 in-school first responders, 93.4% ($n = 99$) received training. Of the 106 social workers, 91.5% ($n = 97$) had training. To assess additional professional characteristics, the participants also reported their years of experience in working with individuals with ID. Participants were also asked to indicate the number of times they provided a service to an individual with ID from January 2020 until November 2020. Table 6 below summarizes the frequencies and percentages for participants.

Results of Research Questions

The data analyses for the content of the survey is organized by dependent variables in the research questions. Research Question One asked were there statistically significant differences in first responders' perceptions (ADA awareness, confidence, attitude, strategy) of public safety instruction for individuals with ID. These responses were described by using the one-way ANOVA followed by the Bonferroni post hoc procedure and f -tests statistics to determine whether there were any statistically significant differences among the means of two or more unrelated groups. To answer Research Question Two, I conducted three standard linear regression analyses to determine if there were a predictive relationship between first responders' awareness of

ADA (1990) and their preparedness (confidence, attitude, strategy). After completing the primary analysis stage, I was able to answer the research questions.

Univariate Analysis of Variances

To answer Research Question One, five one-way ANOVAs were run to determine significant differences among mean scores across the entire PSIID-Q assessment and the four subscales. Cronbach's alpha measured internal consistency. Significant findings were reported at $p < .05$. First, the total composite scale of the items was computed to determine first responders' perceptions (ADA awareness, confidence, attitude, strategy) of public safety instruction for individuals with ID. Then, each subscale was analyzed.

RQ1: Based on objective ratings of first responders, measured by the PSIID-Q, were there statistically significant differences among groups of first responders' perceptions (ADA awareness, confidence, attitude, strategy) of public safety instruction for individuals with intellectual disabilities? In order to answer Research Question One, there were 21 questions within the survey that addressed first responders' perceptions, which consisted of their ADA awareness, attitudes, confidence, and strategy for public safety instruction for individuals with ID. The independent variable, the first responder group factor, included three levels: (a) frontline first responders, (b) in-school first responders, and (c) first responders in social work. The dependent variable was the score using a 4-point Likert-scale on the PSIID-Q.

Levene's test for equality of variance retained the null hypothesis that there is homogeneity of variances. One can assume that variances are homogenous across the three groups of first responders, $F = 2.36, p = .096$. An ANOVA test was conducted to

determine if the total PSIID-Q score differed significantly by participants' first responder group. Results indicated that the effect of group on perception was statistically significant ($F = 7.84$; $p < .001$; $\eta^2 = .047$; see Table 7). As shown in Figure 1, Bonferroni's post hoc analyses revealed that participants who were in-school first responders had significantly higher PSIID-Q scores than did participants who were frontline first responders; participants who were first responders in social work also had significantly higher PSIID-Q scores than participants who were frontline first responders.

Table 7

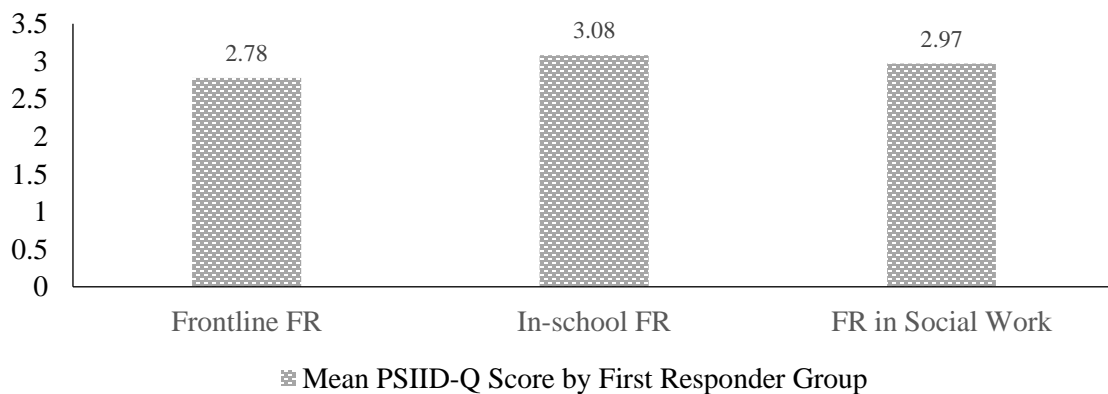
Means and Standard Deviations for PSIID-Q Score by First Responder Group

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
First Responder Group			
Frontline	106b	2.79	.562
In-school	106a	3.08	.560
Social work	106-	2.97	.504

Note. Subscripts display the significant differences in follow-up tests.

Figure 1

Comparison of Mean PSIID-Q Score by First Responder Group



Note. FR = first responder

In order to answer the research question more thoroughly, I examined questions by the subscale within the survey. Included in the content of the four subscales were statements about: (a) ADA awareness (b) attitudes, (c) confidence, and (d) strategy. Specifically, I conducted four *f*-test one-way ANOVAs to compare the means among first responders groups' scores on the subscales. Like the total assessment score obtained from the PSIID-Q, the independent variable on each of the subscales was the first responder group, which was composed of the same three groups: frontline first responders, in-school first responders, and first responders in social work. The dependent variables were the subscale scores on (a) ADA awareness, (b) confidence, (c) attitude, and (d) strategy.

ADA Awareness

The results of the ANOVA indicated a significant difference in first responders' awareness of the ADA of 1990, as it relates to providing public safety instruction to individuals with ID. In order to answer Research Question 1a, I examined Question 7 through Question 15 pertaining to ADA awareness. An analysis of variance showed the effect of the group of first responders on ADA awareness was significant ($F = 8.011$; $p < .001$, $\eta^2 = .048$). Thus, awareness of ADA requirements for individuals with ID differ according to the group of first responders. Bonferroni post hoc tests indicated that in-school first responders ($M = 2.96$) had a significantly higher ADA Awareness subscale score than frontline first responders ($M = 2.56$) and also than first responders in social work ($M = 2.70$).

Confidence

The results of the ANOVA for the Confidence subscale indicated a significant difference among the group means. In order to answer Research Question 1b, I examined Questions 16, 19, 21, and 22, which measured statements pertaining to the confidence of first responders. An analysis of variance showed a significant interaction among groups of first responders and confidence, ($F = 3.163$; $p = .04$; $\eta^2 = .020$). However, both Bonferroni and Scheffe post hoc tests did not indicate any worth noting significant differences in the pairwise comparisons among groups of first responders. This mixed finding is due to the fact that post hoc tests are theoretical unspecified tests that test “after seeing” the data and decide then which comparisons might be interesting.

Strategy

When analyzing groups of first responders’ strategy with individuals with ID, I analyzed Questions 18, 26, 28, 34, and 36. The results of the ANOVA indicated a significant difference in first responders’ use of strategy when providing instruction to individuals with ID. In order to answer research Question 1c, An ANOVA test was conducted to determine if the total Strategy subscale score differed by group of first responders. Results indicated that the effect of the group of first responders on strategy scores was statistically significant ($F = 13.56$; $p < .001$; $\eta^2 = .080$). Thus, strategy for individuals with ID differed according to the group of first responders. Bonferroni post hoc tests indicated that both in-school first responders ($M = 3.26$) and first responders in social work ($M = 3.36$) had significantly higher strategy mean scores than frontline first responders ($M = 2.98$).

Attitude

I examined three items to address Question 1d; Questions 32, Question 33, and Question 37, which yielded an Attitude score of first responders. A significant main effect of the group of first responders on attitude was not found, ($F = 2.22$; $p = .110$; $\eta^2 = .014$). Table 8 gives the results of the one-way ANOVA by first responder group, while Figure 2 lays out the mean subscale scores by first responder group. Findings revealed that three of the four subscales had statistically significant differences in mean scores.

Table 8

F-tests One-Way ANOVA by First Responder Group

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	η^2
ADA Awareness				8.01	<.001	.048
Frontline	106	2.56b	.739			
In-school	106	2.96a	.738			
Social work	106	2.70b	.711			
Confidence				3.16	.044	.020
Frontline	106	2.82	.690			
In-school*	104	3.03	.674			
Social work*	104	3.00	.577			
Strategy				13.56	<.001	.080
Frontline	106	2.98b	.559			
In-school*	104	3.26a	.553			
Social work*	104	3.36a	.564			
Attitude				2.22	.110	.014
Frontline	106	3.11	.618			
In-school*	100	3.28	.611			
Social work*	101	3.17	.468			

Note. * = Missing responses

Figure 2

Comparison of the Four Subscale Scores by First Responder Group

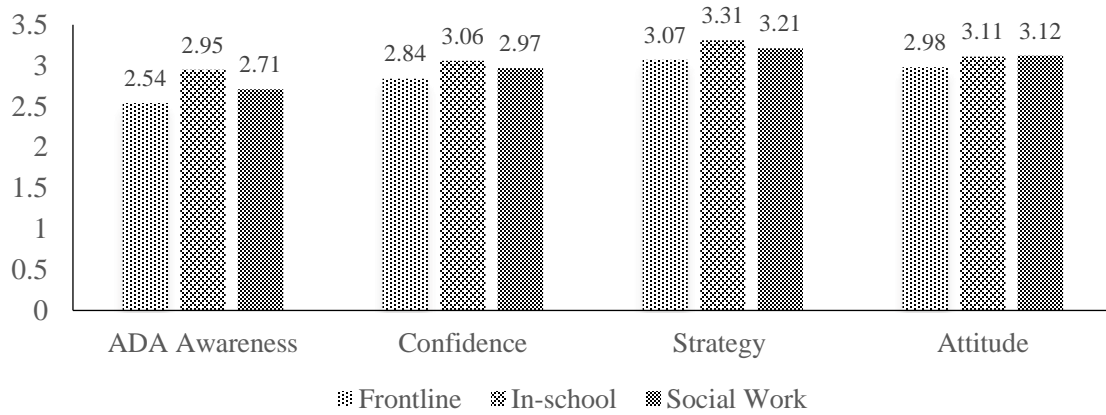


Table 9 through Table 12 indicate the significant differences that were found among the first responders' independent objective-ratings on the four subscales.

Table 9

One-way ANOVA Test on the Attitude Subscale

Number/Variable	Frontline M (SD)	In-school M (SD)	SW M (SD)	<i>p</i>
32. I identify myself when I encounter an individual with an ID.	3.09 (.879)	3.20 (.829)	3.19 (.612)	.567
33. I use visual aids when interacting with individuals with ID.	3.01 (.811)	3.24 (.767)	3.13 (.643)	.086
37. I observe nonverbal behavior of individuals with ID.	3.25 (.705)	3.41 (.753)	3.19 (.659)	.075

Table 10*One-way ANOVA Test on the ADA Awareness Subscale*

Question Number/Variable	Frontline <i>M (SD)</i>	In-school <i>M (SD)</i>	SW <i>M (SD)</i>	<i>p</i>
7. How familiar are you with ADA (1990) as amended by the ADA Amendments Act (2008)?	2.39 (.991)b	2.74 (.929)a	2.36 (1.02)b	.008
8. How familiar are you with your agency's legal obligation in providing accommodations to individuals with disabilities?	2.63 (.887)b	2.95 (.844)a	2.62 (.889)b	.008
9. How familiar are you with your organization's responsibilities in providing accommodations for individuals with disabilities?	2.60 (.880)b	3.01 (.931)a	2.71 (.873)b	.003
10. How familiar are you with the process of providing informal (i.e., third-party) accommodations to individuals with disabilities?	2.49 (.908)b	2.82 (.924)a	2.67 (.933)-	.034
11. How familiar are you with the meaning of "ID"?	2.62 (.930) b	3.15 (.934)a	2.95 (.909)a	<.001
12. How familiar are you with modifying policies, practices, and procedures for individuals with ID?	2.47 (.978) b	2.93 (.969)a	2.74 (.908)-	.002
13. How familiar are you with the difficulty in communication that individuals with ID may experience?	2.62 (.980) b	3.01 (.900)a	2.91 (.879)-	.007
14. How familiar are you with the degrees of ID?	2.53 (.997) b	2.97 (.931)a	2.76 (.921)-	.003
15. I am required to provide services to individuals with ID even if they do not request it.	2.70 (.853)b	3.04 (.955)a	2.60 (8.42)b	.001

Note. FRs = first responders; SW = Social Work

Table 11*One-way ANOVA Test on the Confidence Subscale*

Number/Variable	Frontline <i>M (SD)</i>	In-school <i>M (SD)</i>	SW <i>M (SD)</i>	<i>p</i>
16. I am confident in administering life support care and first aid to individuals with ID.	2.87 (.852)	2.88 (.851)	2.96 (.736)	.676
19. I am confident in restoring public order when individuals with ID are involved.	2.91 (.900)	3.12 (.874)	3.01 (.731)	.195
21. I am confident in treating behavioral problems among individuals with ID.	2.73 (.879)b	3.19 (.837)a	3.07 (.700)a	<.001
22. I am confident in addressing psychiatric problems among individuals with ID.	2.78 (.873)	2.93 (.862)	2.94 (.786)	.307

Table 12*One-way ANOVA Test on the Strategy Subscale*

Number/Variable	Frontline <i>M (SD)</i>	In-school <i>M (SD)</i>	SW <i>M (SD)</i>	<i>p</i>
18. I am confident in providing in-person instruction in settings dedicated to individuals with ID.	2.92 (.813)b	3.20 (.840) a	3.17 (.794)-	.026
26. Individuals with ID can cause harm to themselves or others.	2.91 (.879)b	3.11 (.787)-	3.31 (.832)a	.002
28. Individuals with ID require specialized accommodations.	3.07 (.820)b	3.29 (.809)-	3.48 (.656)a	.001
34. I speak slowly and distinctly, using simple language and repeat information.	3.06 (.728)b	3.38 (.749)a	3.52 (.657)a	<.001
36. I use visual aids when interacting with individuals with ID.	2.92 (.836)b	3.34 (.755)a	3.39 (.734)a	<.001

Multiple Regression Analysis

Research Question Two specifically addresses the predictive relationships between the independent variable, ADA awareness, and the following dependent variables: confidence, attitude, and strategy. To answer the second research question, I conducted three linear regression analyses separately investigating the relations among

the four PSIID-Q factors because they could provide specific data on relative strength and weakness of preparedness and, in turn, best practices in these areas. All assumptions of normality, linearity, homoscedasticity, and multicollinearity were verified prior to completing the regression analysis. The research question for this analysis is presented below.

RQ2: What is the predictive relationship between a first responder's awareness of the ADA (1990) and its effect on confidence, attitude, and strategy (preparedness) toward public safety instruction for individuals with intellectual disabilities?

Linear regression analyses were used to test if the ADA awareness significantly predicted first responders' confidence, attitude, and strategy. The results are presented in Table 13. The data indicated that ADA awareness significantly predicted a first responder's preparedness (confidence, attitude, strategy; see Table 14).

Table 13

Linear Regression Model Results

Model I	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.	95% Confidence Interval for <i>B</i>	
	<i>B</i>	Std. Error	Beta			Lower Bound	Upper Bound
Confidence	(Constant)	1.46	.11	13.20	<.001	1.24	1.68
	ADAa	.54	.03	.62	13.89	<.001	.47 .62
Strategy	(Constant)	2.15	.11	19.72	<.001	1.94	2.36
	ADAa	.38	.04	.49	9.971	<.001	.31 .46
Attitude	(Constant)	2.12	.10	19.71	<.001	1.91	2.33
	ADAa	.39	.04	.51	10.28	<.001	.32 .46

Note. ADAa = Americans with Disabilities Act awareness

Table 14*Regression Model Summaries*

Model	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	Std. Error of the Estimate
Confidence	.618	.382	.380	.51
Strategy	.492	.242	.239	.51
Attitude	.507	.257	.255	.49

Detailed regression results (R^2) showed that the variables in the regression models accounted for a moderate variance in the dependent variables. The results of the regressions indicated the three predictors explained 88.1% of the variance. It was found that ADA Awareness significantly predicted Confidence ($\beta = .54, p < .01$), as it did Strategy ($\beta = -.38, p < .01$), and as it did Attitude ($\beta = .39, p < .01$).

Summary of Results

In this chapter, the 318 surveys completed by groups of first responders and the findings of the study were compiled and reported. First responders' objective ratings revealed statistically significant differences among groups of first responders' perceptions (measured on a 4-point Likert scale) of public safety instruction for individuals with ID. The present study attempted to extend the knowledge of literature to investigate first responders' perceptions of public safety instruction for individuals with ID. Built on theoretical foundations already explored, it can be inferred that first responders' perceptions of public safety instruction for individuals with ID will produce more positive procedural implementation and better outcomes for this population. Based on the results of this study, strategies that support access and progress in general

instruction connected with the skills and concepts taught and their relevance in individuals with ID lives (e.g., asking questions when help is needed; recognizing and organizing information to solve a problem; following a guided inquiry process to explore the natural world; Trela & Jimenez, 2013) should be considered.

The first research question examined whether there were significant differences between groups of first responders and their objective ratings on the composite scores derived from the survey. In addition, four subscales of the PSIID-Q (ADA Awareness, Attitudes, Confidence, Strategy) were considered together for analyses. Results indicated a statistically significant difference in perception of public safety instruction for individuals with ID among the groups of first responders. The proposed hypothesis for the first research question was generally supported in that the variables of first responders' objective ratings on the PSIID-Q differed significantly with in-school first responders having a higher total perception score in public safety instruction for individuals with ID than frontline first responders, but not with first responders in social work. With more in-depth analyses, all but one of the four subscales (i.e., ADA Awareness, Confidence, and Strategy) showed a statistically significant difference among groups of first responders' scores. As a result, the hypothesis for the first research question was accepted.

As it related to ADA awareness, results from first responders' objective ratings showed that in-school first responders had significantly higher scores than both frontline first responders and first responders in social work. However, there was not a statistically significant difference in the objective ratings of groups of first responders on the Attitude

subscale. Instead, there was a statistically significant difference in first responders' objective ratings on the Confidence subscale, with no significant differences being reported in the post-hoc tests. As for first responders' objective ratings on the Strategy subscales, there was a statistically significant difference among calculated scores, with both in-school first responders and first responders in social work having statistically higher scores than frontline first responders.

The second research question considered the predictive relationships between a first responders' awareness of ADA (1990) and its effect on confidence, attitude, and strategy toward public safety instruction for individuals with ID. Confidence, attitude, and strategy were all significantly predicted by ADA awareness scores, where $p < .001$. ADA awareness explained a significant proportion of variance in the combination of confidence, strategy, and attitude. Additionally, it was found that confidence could be predicted the most, ($\beta = .54, p < .01$). Consequently, the hypothesis for the second research question was accepted.

In conclusion, of 312 first responders who rated their ability to identify individuals with ID from individuals without disabilities, 23.7% ($n = 74$) stated that they somewhat disagreed or strongly disagreed that they had knowledge to do so. Of the total 318 participants who took the survey, 50% ($n = 159$) of first responders were slightly familiar or not familiar with the ADA (1990) as amended by the ADAAA (2008). Of that half, 50.9% ($n = 54$) were frontline first responders; 36.8% ($n = 39$) were in-school first responders; and 62.3% ($n = 66$) were first responders in social work.

CHAPTER V

IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSION

Introduction

This study sought to answer two research questions addressing first responders' perceptions of public safety instruction for individuals with ID. The following research questions were investigated: (a) based on objective ratings by first responders, were there statistically significant differences among groups' perceptions (ADA awareness, confidence, attitude, strategy) of public safety instruction for individuals with ID and (b) what was the predictive relationships between first responders' ADA awareness and preparedness (confidence, attitude, strategy)? To answer these questions, factors related to perceptions of public safety instruction for individuals with ID from three groups of first responders were analyzed. I then discussed the statistically significant differences among groups of first responders and their perceptions about public safety instruction for individuals with ID. I also discussed the functional relationship between the ADA of 1990 and its predictive nature of first responders' preparedness. Results of this study indicated some significant findings in perception and preparedness amongst groups of first responders. Additionally, this chapter provided limitations, implications, and suggested recommendations for future research. Finally, conclusions were drawn from the analyses.

Effects of Providing Public Safety Skill Instruction to Individuals with ID

Public safety instruction for individuals with ID is one of interest to many professionals due to the potential long-term benefits that it may offer to society. Few studies, however, have explored perceptions of such accommodations and services to individuals with individuals ID. Given that professional characteristics likely have an impact on first responders' perceptions, such an investigation allowed for better understanding of best practice methods needed to prepare first responders to adequately deliver appropriate public safety instruction to individuals with ID. The PSIID-Q assessment asked first responders to select the appropriate choice that indicated their response to each question. A total of 318 first responders indicated their perceived interest in four subscales related to public safety instruction for individuals with ID, after responding to a demographic/professional section. An ANOVA on total scores was utilized to compare the three first responder groups, as well as to compare the subscales, while linear regressions were utilized to determine predictive relationships of factors.

Significant Differences among First Responders' Perceptions

The first research question for this study examined whether there were statistically significant differences in first responders' objective ratings regarding their perception of public safety instruction for individuals with ID. The ANOVA procedure showed statistically significant differences in groups of first responders' objective ratings of ADA awareness, confidence, and strategy. Data from this study were consistent with previous findings that gaps in first responders' interactions with individuals with ID may

exist because of limited resources availability and a lack of updated and current training in ADA and preparedness (Neave-Ditoro et al., 2019; Stevens et al., 2018).

ADA Awareness

There was a statistically significant difference in ADA awareness among the groups of first responders ($F = 8.011$; $p < .001$). The finding especially indicates that in-school first responders have higher ADA awareness than the other two groups. It is supported by Satcher (1994) who claimed that ADA provides unprecedented employment protection for individuals with ID and addresses attitudinal barriers, sets a legal precedent for nondiscrimination by private-sector employers, and mandates the provision of job accommodations. Because the ADA provides protection only for qualified individuals with disabilities, individuals with ID must also be knowledgeable of and taught to relate their strengths and limitations in a social, ecological context, a skill that is taught more rigorously in public schools under the Individuals with Disabilities Education Act (IDEA).

Likewise, another possible reason that in-school first responders have higher ADA awareness than the other two groups is largely due in part to them having more opportunities to work with individuals (students) with ID. First responders, in school settings, are the main resource personnel for legal requirements of the ADA (1990). This can be attributed to the fact that schools are composed of different teachers with content-specific backgrounds (i.e., English, history, Special Education teachers, etc.). Because ADA is the umbrella for IDEA, many school administrators rely on special educators to ensure best practices for an inclusive environment. When frontline first responders are

examined within their settings (police departments or fire departments), they are not unique in a content area like in-school first responders. For both frontline first responders and first responders in social work, having similar duties leaves the responsibility of ADA awareness as a personal responsibility. In this survey, in-school first responders were Special Education teachers and school counselors, who are responsible for ADA. The statistical difference may be derived from this finding and supported by post-disaster programming, which views schools as key settings for assessing and identifying youths deemed at risk for poor psychosocial outcomes and for delivering universal prevention interventions (O'Connell et al., 2009).

Confidence

The data displayed a significant difference on the Confidence subscale of the PSIID-Q ($F = 3.163$; $p = .04$); however, the post hoc tests revealed no statistically significant differences when making pairwise comparisons of groups of first responders' scores in this area. There was only one statistically significant difference in the combination of variables on the Confidence subscale among individuals with ID with both in-school first responders and first responders in social work having higher scores than frontline first responders in their confidence in treating behavioral problems. As determined, this finding supports existing literature in recognizing that the confidence that one has in the outcomes of his or her behavior helps to determine one's actions (Soodak & Podell, 1996). Interestingly, the significant differences in the pairwise comparisons of the post hoc tests (Bonferroni and Sheffe) produced only one statistically significant difference in the variables on the Confidence subscale.

Variable Q21 (I am confident in treating behavioral problems among individuals with ID) was the only variable on the subscale with a statistically significant difference ($F = 9.340$; $p < .001$), where frontline first responders had a mean score of 2.73 ($SD = .879$); in-school first responders had a mean score of 3.19 ($SD = .837$); and first responders in social work had a mean score of 3.07 ($SD = .700$) on the Confidence subscale. Both follow-up tests also indicated that both in-school first responders and first responders in social work scored significantly higher than frontline first responders. This may insinuate that if confidence does influence one's perception of the ability to work successfully with individuals with ID, then an increase in requirements for teaching self-confidence might be needed to address behavioral problems among individuals with ID.

Attitude

All groups of first responders perceived themselves as having positive attitudes towards public safety instruction for individuals with ID, so there was no statistically significant difference ($F = 2.22$; $p = .110$). The average mean scores for 307 first responders for (a) observing nonverbal behaviors of individuals with ID was $M = 3.28$; (b) using visual aids when interacting with individuals with ID was $M = 3.21$, and (c) identifying self when encountering an individual with ID was $M = 3.16$, respectively. Although previous literature found attitudes as one of the biggest barriers to individuals with ID receiving equitable access to services (Lewis & Stenfert-Kroese, 2010), the finding in this study is supported by Westling et al. (2013) whose claims include (a) one reason many of the respondents have held positive attitudes is due to their previous contact and experience with individuals with ID and (b) respondents with prior contact

with individuals with ID are more likely to agree with positive statements towards individuals with ID. These findings encapsulate the data that show 87% ($n = 267$) of first responders indicated that they observe nonverbal behavior of individuals with ID because of having experience with and interacting with individuals with ID outside of their place of employment, which yields better attitudes that are expected around the world.

Strategy

The data portrayed a statistically significant difference on the Strategy subscale of the PSIID-Q assessment ($F = 13.56$; $p < .001$). For both in-school first responders and first responders in social work, there were significantly higher mean scores in the use of strategy than frontline first responders. A possible reason for in-school first responders and first responders in social work having higher mean scores in strategy than frontline first responders is because the two groups have greater access to and engage more with individuals with ID. This is mainly related to the fact that both groups develop relationships that occur in the home and out of the home. Because strategy uses are built on developed skills that are meant to be generalized across multiple settings, both in-school first responders and first responders in social work are more likely to have had professional development related to ID than frontline first responders, who may never engage with individuals with ID until an emergency or disaster occurs. The statistical difference may be related to this finding, which is supported by Mechling (2008), highlighting the mandate for personal safety skills to be generalized across settings and situations where they will be encountered and that programs need to evaluate generalization in natural settings if using simulation for instruction.

Relationship between ADA Awareness and Preparedness

The second research question for this study examined the connection between first responders' awareness of ADA's legal obligations and its impact on preparedness variables (confidence, attitude, strategy). Results revealed that first responders' ADA awareness predicted first responders' confidence, attitude, and strategy.

Confidence

From the data, it was determined that ADA awareness was positively correlated with Confidence ($F = 192.98, p < .001$). ADA awareness explained 38% (R^2) of variation. This means that first responders possessing higher ADA awareness have higher confidence in working with people with ID. This discovery was aligned with results that there are a variety of reviewed training programs and policies, which promote effective communication that builds confidence and competence of first responders when engaging with individuals with ID (Christensen & Bezyzk, 2017). Also, ADA awareness increases one's cooperative effort between organizational leadership and first responders, which establishes a work environment that provides adequate training and ensures the confidence of first responders (Substance Abuse and Mental Health Services Administration, 2018).

Attitude

Indications from the data also consisted of the notion that ADA awareness can positively predict attitude ($F = 105.73; p < .001$). ADA awareness explained 26% (R^2) of variation. It means that the first responders possessing higher ADA awareness have more positive attitudes in working with people with ID. This finding was aligned with results

found in the study of Clayfield et al. (2009), who found that crisis intervention and risk management trainings impacted police officer attitudes towards individuals with [disabilities] that they had encountered. A comparative major finding of their seven subscales regarding attitude was that first responders with previous training in dealing with at-risk populations have significantly fewer negative attitudes and feel significantly more adequately prepared.

Strategy

As it related to ADA predicting Strategy, findings from the data implied that strategy was positively correlated with and explained by a significant proportion of variance in ADA awareness scores ($F = 99.42$; $p < .001$; $R^2 = .24$), which means that the more a first responder is aware of ADA, the more likely an effective strategy will be used. This finding substantiates other studies' results that show general safety skill instruction as an effective intervention for implementing procedures for teaching public safety skills to individuals with ID (Mechling et al. 2009; Mechling, 2008). Effective use of strategy addresses portions of the ADA (1990) that are relevant to first responders because it states that reasonable accommodations must be provided when necessary for individuals with disabilities to receive equitable services as the general population.

Limitations

This study had several limitations. First, it was possible that the results from the sample may not have represented the total population of first responders across the United States. If the study was replicated on a larger cross-sectional sample of first responders from across the United States, including healthcare workers as first

responders, the results may be different. Although recruitment of participants was efficient and produced a large sample size which produced disproportionality when looking at each group by job title only, the study was also limited in the capability of completing additional analyses to further evaluate the relationship among variables. The demographic characteristics of the sample were also limited, not including race and/or educational background. Furthermore, the sample size for this study yielded broad, basic frequencies and descriptive statistics of the demographic variables. For example, the frequency of a service being provided to an individual with ID was extremely broad, ranging from 0 to 99 times between January 2020 and November 2020.

Second, the first responders may have had stereotypes or empathetic attitudes toward individuals with ID that were not reflected in their responses due to the data collection instrument, and therefore their responses to the survey may not have provided honest responses. Another associated limitation pertains to the wording that was used to describe the traits that would cause for intervention for individuals with ID. The wording described the behavior that a first responder would use when intervening, which may have enabled first responders to give what they perceived to be socially desirable ratings. The attitudinal statements on the PSIID-Q assessment may have enabled first responders to mask their true biases and prejudices towards individuals with ID. Consequently, the first responders may have altered their attitudes after reading the survey items and adjusted their views. Although responses to the PSIID-Q were anonymous, participants still may not have wanted to appear biased.

A third limitation of this study is that although social workers were considered predominantly female with 83% overall in previous studies, this study had a sample size of social workers as being predominantly male at 57.5%. This can be largely due to how the social work workforce possesses a lack of a generally accepted definition of exactly who should be considered part of the social work workforce. There may be several hundred thousand individuals who have completed a formal education in social work at the bachelor's or master's level who do not call themselves social workers and who are not reported in existing data systems as social workers; these individuals may be working as administrators, supervisors, educators, or policy analysts in health and social service organizations (Salsberg et al., 2017). To add, although several hundred thousand social workers have passed an examination and are licensed, hundreds of thousands of others who define themselves as social workers or are defined by their employers as social workers have not completed a formal social work education, have not passed a social worker examination, and are not licensed as a social worker. This lack of consensus on who is to be considered a social worker makes it a challenge to describe the workforce to even gain a true perspective of them serving as first responders to individuals with ID.

Implications for Future Practice

This study calls upon first responders to produce a core training package, suitable across professions with elements that are disability-specific and therefore tailored accordingly (Hemm et al., 2015). Specifically, it calls on practitioners to provide ADA, confident-building training with exposure to various de-escalation techniques to support first responders in engaging effectively with individuals with ID. Based on previous

literature of safety instruction regarding individuals with ID, it can be concluded that a breakdown in the collaboration between families, schools, and public officials is occurring. Individuals with ID need specific instruction in crisis prevention to be part of their specially designed, systematic instruction that includes focusing on behavior analysis in the preparation and implementation of interventions (Spooner et al., 2012).

Although individuals with ID may not have extensive knowledge of a crisis plan, they should be included in the instruction of public safety skills, along with caregivers because they are the experts, and they have valuable information about the individual with ID that can offer productive and successful crisis planning and outcomes. Disability-specific training programs for first responders should produce best practices that are geared towards the construct of adaptive behavior and intellectual functioning for individuals with ID. Understanding and use of the construct of adaptive behavior is critical to clinicians and practitioners in the field of ID because of the four essential functions that adaptive behavior fulfills in regard to (a) understanding the phenomenon of ID, (b) diagnosing a person with ID, (c) providing a framework for person-referenced education and rehabilitation goals, and (d) focusing on an essential dimension of human functioning (Tassé et al., 2012).

Suggestions for Future Research

Future research should embody the idea of increasing the validity of the survey by controlling more variables (i.e., level of education), improving measurement technique (i.e., 5-point Likert scale), and including more focus groups. Conducting the same study using an updated instrument to include healthcare frontline first responders' perceptions

of public safety instruction for individuals with ID would also be beneficial. While the instrument's reliability was adequate with a Cronbach alpha of .95, by utilizing an already validated instrument, future studies can successfully measure preparedness (confidence, attitude, strategy) to break new ground in an exploratory study of first responders' perceptions of public safety instruction for individuals with ID.

A plan to expand upon the work in this dissertation and create a culturally responsive community-based framework that is designed to address public safety instruction for individuals with ID should be considered. Since first responders are crucial in protecting individuals in their community from harm, rather it be man-made or a natural disaster, examining a one-way multivariate analysis of variance (MANOVA) will assist in comparison of two or more continuous response variables (e.g., awareness and preparedness) by a revised-single factor variable (e.g., group of first responders). This step forward would afford future research the opportunity to focus on first responders who are better trained and have practiced response techniques under simulated conditions, which may be better prepared to address the likely needs of individuals with ID during an actual emergency and incorporate the needs and skills of individuals with ID into "whole community." A one-way MANOVA shall be conducted to determine the effect of the four groups (frontline, in-school, social work, healthcare) on the four dependent variables (ADA Awareness, Confidence, Attitude, and Strategy) when considered in combination.

Conclusion

The purpose of this survey study was to determine if a statistically significant difference existed in first responders' perceptions of public safety instruction for individuals with ID. The lack of evidence-based research on first responders and their interactions with individuals with ID propelled the need for additional quantitative inquiry. The literature was unclear on whether professional characteristics of first responders made a difference in their perceptions towards public safety instruction for individuals with ID. Therefore, I examined the differences and correlations in groups of first responders' perceptions of public safety instruction for individuals with ID.

In conclusion, although the safety-related literature base is growing for individuals with ID, limited studies exist that investigate first responders' perceptions of individuals with ID and their adaptive skills related to the community. Even less knowledge has been gained regarding how first responders can help formulate appropriate and realistic public safety instruction for optimal outcomes. Ultimately, first responders should focus on matching diversity training experiences to the cognitive and adaptive abilities, strengths and preferences, and family characteristics of the individual with ID. Furthermore, there continues to be an obvious need for more training in ADA awareness, as well as confidence-building techniques, within community agencies and employment settings before individuals with ID can matter.

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APPENDIX A

Public Safety for Individuals with Intellectual Disabilities Questionnaire

Public Safety Instruction for Individuals with Intellectual Disabilities Questionnaire

The completion of this questionnaire constitutes your informed consent to act as a participant in this research. There is a potential risk of loss of confidentiality in all email, downloading, electronic meetings, and internet transactions.

1. What is your age?

2. What is your gender?

- Male
- Female
- Prefer Not to Answer

3. In terms of your current occupation, how would you characterize yourself?

- Emergency Management Technician
- Firefighter
- Police Officer
- School Counselor
- Social Worker
- Special Education Teacher

4. How many years of experience do you have working with individuals with intellectual disabilities?

5. In 2020, how many times did you provide a service to an individual with an intellectual disability?

6. Have you had training related to individuals with intellectual disabilities?

7. How familiar are you with the Americans with Disabilities Act (ADA) of 1990 as amended by the ADA Amendments Act of 2008?

1 = Not familiar at all 2 = Slightly familiar 3 = Very familiar 4 = Extremely familiar

8. How familiar are you with your agency's legal obligation in providing accommodations to individuals with disabilities?

1 = Not familiar at all 2 = Slightly familiar 3 = Very familiar 4 = Extremely familiar

9. How familiar are you with your responsibilities with providing ADA accommodations for individuals with disabilities at your organization?

1 = Not familiar at all 2 = Slightly familiar 3 = Very familiar 4 = Extremely familiar

10. How familiar are you with the process of providing informal (i.e., third-party) accommodations to individuals with disabilities?

1 = Not familiar at all 2 = Slightly familiar 3 = Very familiar 4 = Extremely familiar

11. How familiar are you with the meaning of "intellectual disabilities?"

1 = Not familiar at all; 2 = Slightly familiar 3 = Very familiar 4 = Extremely familiar

12. How familiar are you with modifying policies, practices, and procedures for individuals with intellectual disabilities?

1 = Not familiar at all 2 = Slightly familiar 3 = Very familiar 4 = Extremely familiar

13. How familiar are you with the difficulty in communication that individuals with intellectual disabilities may experience?

1 = Not familiar at all 2 = Slightly familiar 3 = Very familiar 4 = Extremely familiar

14. How familiar are you with the degrees of intellectual disabilities?

1 = Not familiar at all 2 = Slightly familiar 3 = Very familiar 4 = Extremely familiar

15. I am required to provide services to individuals with intellectual disabilities even if they do not request it.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

16. I am confident in administering life support care and first aid to individuals with intellectual disabilities.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

17. I am confident in communicating with dispatchers and medical about the condition of incoming individuals with intellectual disabilities.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

18. I am confident in providing in-person instruction in settings dedicated to individuals with intellectual disabilities.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

19. I am confident in restoring public order when individuals with intellectual disabilities are involved.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

20. I am confident in collaborating with social services for individuals with intellectual disabilities.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

21. I am confident in treating behavioral problems among individuals with intellectual disabilities.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

22. I am confident in addressing psychiatric problems among individuals with intellectual disabilities.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

23. I can identify individuals with intellectual disabilities from other individuals without disabilities.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

24. Responding to calls involving individuals with intellectual disabilities takes up a fair share of time.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

25. Individuals with intellectual disabilities deserve special consideration and treatment.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

26. Individuals with intellectual disabilities can cause harm to themselves or others.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

27. Investing in intervention for individuals with intellectual disabilities is necessary.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree; 4 = Strongly Agree

28. Individuals with intellectual disabilities require specialized accommodations.

1 = Strongly Disagree 2 = Somewhat Disagree; 3 = Somewhat Agree 4 = Strongly Agree

29. It is better that individuals with intellectual disabilities live independently.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

30. Individuals with intellectual disabilities can benefit from public safety instruction.

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Somewhat Agree 4 = Strongly Agree

31. I have arranged a calm setting for an individual with intellectual disability.

1 = Definitely Not; 2 = Probably Not; 3 = Probably Yes; 4 = Definitely Yes

32. I identify myself when I encounter an individual with an intellectual disability.

1 = Definitely Not; 2 = Probably Not; 3 = Probably Yes; 4 = Definitely Yes

33. I state my purpose when responding to an individual with an intellectual disability.

1 = Definitely Not 2 = Probably Not 3 = Probably Yes 4 = Definitely Yes

34. I speak slowly and distinctly, using simple language and repeat information.

1 = Definitely Not 2 = Probably Not 3 = Probably Yes 4 = Definitely Yes

35. I have the individual with an intellectual disability repeat the information or ask questions.

1 = Definitely Not 2 = Probably Not 3 = Probably Yes; 4 = Definitely Yes

36. I use visual aids when interacting with individuals with intellectual disabilities.

1 = Definitely Not 2 = Probably Not 3 = Probably Yes 4 = Definitely Yes

37. I observe nonverbal behavior of individuals with intellectual disabilities.

1 = Definitely Not 2 = Probably Not 3 = Probably Yes 4 = Definitely Yes

38. I listen to what is said and what is not said when by individuals with intellectual disabilities.

1 = Definitely Not 2 = Probably Not 3 = Probably Yes 4 = Definitely Yes

*39. Would you like to enter a drawing for the chance to win a \$20 Amazon gift card?

Thank you for completing the survey. Your survey responses will not be associated with your contact details in any way. I will only use it to distribute your gift card. Gift cards are sent within four to six weeks of the survey's close.

APPENDIX B

Email for Consent to Use Existing Survey

Email for Consent to Use Existing Survey

Dear Dr. Chad M Stevens,

I am a doctoral student from Texas Woman's University in Denton, Texas writing my dissertation tentatively titled "First Responders' Perceptions of Public Safety Instruction for Individuals with Intellectual Disabilities" under the direction of my dissertation committee chaired by Dr. Minkowan Goo.

I would like your permission to use and reproduce the ADA Faculty Questionnaire (ADAFQ) in my research study under the following conditions:

- I will use the ADAFQ only for my research study and will not sell or use it for any other purposes.
- I will include a statement of attribution and copyright on all copies of the instrument. If you have a specific statement of attribution that you would like for me to include, please provide it in your response.
- At your request, I will send a copy of my completed research study to you upon completion of the study and/or provide a hyperlink to the final manuscript.

If you do not control the copyright for these materials, I would appreciate any information you can provide concerning the proper person or organization I should contact.

If these are acceptable terms and conditions, please indicate so by replying to me through email at cchatterfitzhugh@twu.edu.

Sincerely,

Calisha Chatter-Fitzhugh, EdS

APPENDIX C

Recruitment Letter



Need First Responders for Dissertation Study

- Participants will be asked to complete a questionnaire about public safety instruction.
- Participation is completely voluntary and confidential. Participants may leave the survey at any time.
- As a thank you for completing the survey, you will be entered in a drawing for one of one hundred **\$20 Amazon gift cards**.
- The total time commitment is about 10 minutes.

If interested, please click [here](https://www.psychdata.com/s.asp?SID=190618) or go to the link:

<https://www.psychdata.com/s.asp?SID=190618>

If you have any questions about this study, please email or contact me at cchatterfitzhugh@twu.edu or (469)588-5054. Please feel free to forward this email to any colleagues, friends, or family members that are police officers.

Calisha Chatter-Fitzhugh, EdS
Special Education Doctoral Candidate
Texas Woman's University

There is a potential risk of loss of confidentiality in all email, downloading, electronic meetings and internet transactions.