EVALUATING DE-ESCALATION TRAINING AT THE NATIONAL AND REGIONAL LEVELS: A MIXED METHODS ANALYSIS OF OFFICER PERCEPTIONS AND USE OF FORCE

A DISSERTATION
submitted in partial fulfillment
of the requirements for the degree of
DOCTOR OF PHILOSOPHY OF CRIMINAL JUSTICE

BY
Samantha A. Tosto

University of New Haven
West Haven, Connecticut
May 3, 2024
DEDICATION

To my husband, Jean-Philip. Your sacrifices and support have made this possible. Thank you for helping me across the finish line and always supporting a mid-day nap.

To my parents who have always fostered my love of learning. Mom, thank you for the many trips to the public library and for teaching me that knowledge is a special kind of power. Dad, thank you for always having open ears and open arms whenever I needed them. Lastly, to my sister, Sabrina, who lights up my life every day.
ACKNOWLEDGEMENTS

Thank you to my amazing chair, Dr. David Myers, who has guided me through this program from the beginning and kept me centered through my many mid-dissertation crises. He is deserving of many Dundie Awards. Thank you to the entirety of my committee, including Dr. Stephanie Bonnes, Professor Lisa Dadio, and Dr. Morgan Steele. I am so appreciative of your endless support and editing. I am forever indebted to you all for your wisdom, kindness, and mentorship throughout this process.

Thank you to the National De-escalation Training Center whose funds and support of my research questions made this work possible. I believe this organization is creating a brighter future for policing.

Additional thanks to my classmates, peers, and mentors for getting me through starting a PhD program during a global pandemic and beyond. Particularly, thank you to all of the incredible, professional women I have come to know throughout this journey. You all constantly remind me that we belong in these spaces and can do truly incredible things.

Lastly, I am very much aware that this work could not have been completed without the endless support provided by my family and friends over the past several years- thank you for your patience and resilience.
ABSTRACT

High profile incidents of police misconduct and excessive use of force, particularly in cases of racialized violence against unarmed Black men, have led to a sociopolitical reckoning with the American criminal justice system. Following several of these incidents in the past decade, scholars, policymakers, and the public all have called for significant reform and the prioritization of de-escalation skills for law enforcement officers during citizen interactions. Despite these efforts, little empirical evidence has been established regarding the effectiveness and generalizability of de-escalation training programs. The current research represents a mixed-methods evaluation of the National De-escalation Training Center’s program at both the national and regional levels. The current study utilized pre- and post-training data from over 500 trainees in the 6-month study period. Utilizing quantitative data, the current study found that exposure to training resulted in improved procedural justice attitudes and exhibited de-escalation strategies that are personalized to the individual subject. Exposure to higher education also consistently informed these attitudinal and behavioral changes, while other demographic variables had limited effects. These findings support the efforts of NDTC to provide a personality assessment-based de-escalation strategy training for in-service law enforcement. Qualitative data primarily uncovered the ways in which officers seek to deflect sociopolitical calls for change and deny their personal connection to misconduct within the profession. Considerations of future research include the collection of use of force data from agencies who participate in this program to aid in a more comprehensive understanding of the long-term effects of NDTC’s training and the effectiveness of changes to approaching citizen encounters more broadly. The limitations of the current work and additional directions for research are also discussed.

Keywords: policing, de-escalation, program evaluation, procedural justice, use-of-force
TABLE OF CONTENTS

ACKNOWLEDGEMENTS........................................................................................................ iv
ABSTRACT.................................................................................................................................. v
LIST OF TABLES ........................................................................................................................ ix
LIST OF FIGURES ....................................................................................................................... x
CHAPTER 1: INTRODUCTION .................................................................................................. 1
CHAPTER 2: THEORETICAL LITERATURE .............................................................................. 5
  Procedural Justice .................................................................................................................. 5
  Procedural Justice in Policing ................................................................................................. 9
  Criticism of Procedural Justice Theory ................................................................................. 12
  De-escalation Training ......................................................................................................... 15
CHAPTER 3: PRACTICE AND APPLICATION ......................................................................... 21
  Procedural Justice ................................................................................................................ 21
  De-escalation Training ......................................................................................................... 29
  National De-escalation Training Center Principles and Practice ........................................ 36
CHAPTER 4: METHODOLOGY ............................................................................................... 38
  Research Questions .............................................................................................................. 39
    Secondary Data Research Questions .................................................................................. 39
    Primary Data Research Question ....................................................................................... 42
  Quantitative Methods ......................................................................................................... 43
    Sample ............................................................................................................................... 43
    Instruments ......................................................................................................................... 44
    Measures ............................................................................................................................ 46
    Design and Procedure ....................................................................................................... 47
    Analysis .............................................................................................................................. 49
  Qualitative Methods ............................................................................................................ 54
    Recruitment and Sampling ............................................................................................... 54
    Data Collection .................................................................................................................. 57
    Researcher Role and Relationships .................................................................................... 62
    Data Analysis ..................................................................................................................... 65
CHAPTER 5: QUANTITATIVE RESULTS .............................................................................. 68
  Variable Cleaning .................................................................................................................. 68
  Descriptives of Individuals and Agencies .......................................................................... 69
  Course Evaluation Feedback ................................................................................................. 71
  Factor Analysis and Composite Measure Creation .............................................................. 73
Confirming Normality and Power ................................................................. 78
Research Question 1 .................................................................................. 82
Research Question 2 .................................................................................. 91
Research Question 3 .................................................................................. 91
  Procedural Justice Attitudes ..................................................................... 93
  Use of Force .............................................................................................. 94
  Distrust ...................................................................................................... 95
  Shared Values ........................................................................................... 96
  Trust .......................................................................................................... 97
Crisis Intervention/Mental Illness ................................................................. 98
Research Question 4 .................................................................................. 100
Moderation ................................................................................................. 110

CHAPTER 6: QUALITATIVE RESULTS DEFENSIVE OTHERING IN THE FACE OF REFORM ................................................................. 113
  Good vs. Bad Apples: Resisting Structural Issues in Policing .................. 115
  Posturing Through Location/Geography .................................................. 120
  Reform as Dangerous and Harmful ......................................................... 124
  Drawing Generational Lines ................................................................... 127
  Avoidance of Systemic Change .............................................................. 133
  Policy/Reform as Flawed ......................................................................... 138
  Exceptions to the Rule ............................................................................ 147

CHAPTER 7: QUALITATIVE RESULTS TRAINING PERSPECTIVES ......................................................... 151
  Overall Experience with NDTC ............................................................... 151
  Incorporating De-escalation Earlier ......................................................... 158
  Training Evaluations and Delegitimizing Methods .................................. 163

CHAPTER 8: DISCUSSION & CONCLUSIONS ................................................. 170
  Quantitative Findings ............................................................................ 170
    Demographics, Attitudes, and Training Performance ............................. 171
    Departmental Use of Force ................................................................... 173
    Attitudinal Change and Training Exposure .......................................... 173
    Moderating Effects of Training ............................................................ 175
  Qualitative Findings ............................................................................... 178
  Limitations ............................................................................................... 182
  Implications for Policy & Practice ......................................................... 186
  Future Research ..................................................................................... 189
FUNDING ACKNOWLEDGEMENTS ........................................................................................................ 193
APPENDIX A: Standard Pre-Training Assessment ........................................................................ 194
APPENDIX B: Pre- and Post-Training Assessment ........................................................................ 199
APPENDIX C: Post-Training Course Evaluation ............................................................................ 200
APPENDIX D: Standard Agency Data Survey ............................................................................... 206
APPENDIX E: Interview Schedule ................................................................................................ 209
REFERENCES .................................................................................................................................. 210
LIST OF TABLES

Table 4.1. Sample Demographics ................................................................. 44
Table 4.2. Analytic Plan for Quantitative Data ........................................... 49
Table 4.3. Interview Sample Demographics ............................................... 56
Table 4.4. Participant Aliases and Information ........................................... 57
Table 5.1. Agency Demographic Data ....................................................... 70
Table 5.2. Evaluation of Course Content and Skill Building ....................... 71
Table 5.3. Evaluation of Practical Skills Application .................................. 72
Table 5.4. Evaluation of Instructors .......................................................... 72
Table 5.5. Evaluation of Overall Course Experience .................................. 73
Table 5.6. Principal Component Analysis with Varimax Rotation ............... 74
Table 5.7. Rotated Component Matrix ....................................................... 75
Table 5.8. New Composite Variables for Procedural Justice Attitudes ........... 77
Table 5.9. McNemar Test of Differences ................................................... 83
Table 5.10. Wilcoxon Test of Post-Training Simulation Interventions .......... 84
Table 5.11. Logistic Regression: Applying Appropriate Interventions and Pre-Training Attitudes ................................................................. 87
Table 5.12. Logistic Regression: Applying Effective Interventions and Pre-Training Attitudes ................................................................. 89
Table 5.13. Power Analysis of Paired-Sample t-Tests ................................. 93
Table 5.14. Paired-Sample t-Test of Procedural Justice Attitudes ................ 94
Table 5.15. Paired-Sample t-Test of Use-of-Force Attitudes ....................... 95
Table 5.16. Paired-Sample t-Test of Distrust Toward Citizens .................... 96
Table 5.17. Paired-Sample t-Test of Shared Values with Citizens ............... 97
Table 5.18. Paired-Sample t-Test of Trust in Communities ....................... 98
Table 5.19. Wilcoxon Test of Perceptions of Mental Illness ....................... 99
Table 5.20. OLS Regression: Demographics and Procedural Justice Attitudes ......102
Table 5.21. OLS Regression: Demographics and Community Trust ............ 104
Table 5.22. OLS Regression: Demographics and Distrust ........................ 105
Table 5.23. OLS Regression: Demographics and Shared Values ................ 107
Table 5.24. OLS Regression: Demographics and Use of Force .................. 108
Table 5.25. Moderation Analysis: Z-Scores of Pre-Post Training Effects ....... 110
LIST OF FIGURES

Figure 2.1. Procedural Justice Process .................................................................10
Figure 5.1. Scree Plot .......................................................................................75
Figure 5.2. Distributions of Composite Measures ..................................................79
CHAPTER 1: INTRODUCTION

The United States’ criminal justice system currently is experiencing a reckoning with its history of racial and ethnic oppression, as well as with many current policies that are rooted in, and continue to reinforce, historical inequality. Called both the “second great awakening” (Sherman, 2018) and the “Ferguson effect” (Zimring, 2017), the contemporary state of public consciousness regarding race relations and the disproportionate impact of the legal system has been prompted by several police killings of unarmed citizens, particularly Black men. Sparking significant controversy, the 2014 death of Michael Brown in Ferguson, Missouri, signifies one of the key incidents that inspired the American public and lawmakers alike to call for significant policing reform and changes to use-of-force practices (Bogel-Burroughs, 2020). The President’s Task Force on 21st Century Policing (2015) represents the largest national collective effort toward such reform, resulting in a 116-page document highlighting the need for change and the pillars of policing that must guide the United States criminal justice system in pursuing equity and procedural justice.

In recent years, the deaths of Tamir Rice, George Floyd, Breonna Taylor, and Tyree Nichols have also brought to light the uniquely racialized nature of American policing and public safety efforts (Schaap & Saarikkomaki, 2022). The public outcry, protests, and riots that followed these deaths have given rise to new efforts to improve police legitimacy and public trust in the police (Bayley, 2018; Saarikkomaki et al., 2021; Worden & McLean, 2017). Recent interest has also shifted away from corruption at the administrative level within policing to concerns regarding ground level police-community relations that result in misuses of officer discretion and excessive force (President’s Task Force on 21st Century Policing, 2015; Schaap & Saarikkomaki, 2022).
Researchers in the fields of public policy, sociology, and criminology/criminal justice have attempted to better understand these use-of-force incidents and the racial and ethnic variables that may influence them. As Nix and colleagues (2017) reported, in all police-related citizen deaths in 2015, Black citizens were twice as likely to be unarmed at the time they were fatally shot. Several studies have also sought to understand the individual and situational factors that impact use-of-force decisions by officers, finding that women and officers with higher levels of education (particularly 4-year college degrees) are consistently less likely to use lethal force without experiencing increased rates of personal injury (Paoline & Terrill, 2003, 2007; Schuck & Rabe-Hemp, 2005; Terrill & Mastrofski, 2002). However, research on officer and citizen racial and ethnic identities has been far less certain. Studies have found that while initial racial effects may be present, when including other individual and situational variables, officer race, citizen race, and officer-citizen race dyads have very little effect of predicting use of force outcomes (Fryer Jr., 2019; Jetelina et al., 2017; Lawton, 2007).

Given these findings and the relatively rare nature of the use of any force (approximated at about less than 2% of all police-citizen encounters), there has been significant pushback against recent reform efforts (Davis et al., 2018). Although police use of force can be highly corrosive to public trust in these institutions and overall citizen compliance (Harkin, 2015), concerns remain that adjusting officers’ discretionary use of lethal and less-than-lethal force may pose significant safety concerns (Blake, 2017; Jackman, 2016; Landers, 2017; Williams, 2015). As a result, counter-protest efforts, such as the “Blue Lives Matter” group, have gained popularity, and police unions have expressed concern over increased safety risks for officers, as ambushes of law enforcement have gained national attention (Fernandez et al., 2016; Visser, 2016; Yan & Westhoff, 2022).
Generally, individuals raise concerns about the available research literature and the extent to which increased training on use-of-force and de-escalation may be both cost-intensive and currently lacking in scientific evidence of significant effects on officer behavior (Blake, 2017; Jackman, 2016; Landers, 2017; Williams, 2015). As a result, some policing scholars have evaluated de-escalation training and use-of-force practices to better understand the spaces in which concrete change can be made (Engel et al., 2022a; 2022b; Goh, 2021; McLean et al., 2020). The current study contributed to this line of work through a preliminary evaluation of a nationwide de-escalation training program and its effects on individual officer attitudes and agency-level use-of-force.

Despite the increased sociopolitical pressure for change, there is little empirical evidence as to how to effectively address officers’ use of excessive force and the overall reliability and validity of de-escalation trainings (Engel et al. 2020). These barriers are particularly salient because of the extensive social networks that allow for instances of police injustice to be shared and viewed cross-nationally. Dating back to the 1992 recording of the brutal beating of Rodney King by Los Angeles police officers, and previously to the photographs capturing police brutality during the 1960s civil rights movement, the sharing of media has long contributed to public perceptions of law enforcement (Skolnick & Fyfe, 1993). The advent of social media and camera phones in the current millennium have created an even greater challenge to police efforts to build legitimacy and trust. Even while utilizing efforts such as community-policing or the tenets of procedural justice, which are outlined in the following chapter, officers must combat not only how their own behaviors impact community relations but also how the actions of every recorded officer across the United States may harm their rapport with citizens. As a result, what is truly
needed is commitment by the criminal legal system to evidence-based comprehensive reform and training that will result in measurable change in officer use-of-force.

This study represents a preliminary evaluation of programming offered by the National De-escalation Training Center, a multi-site initiative focused on de-escalation skills, the principles of procedural justice, skill development in personality assessment, and critical personalized decision-making in individual encounters (Steele et al., 2022). This training, which utilizes DISC personality assessment and scenario-based practice, is offered across seven different Regional Training Centers and is facilitated through a train-the-trainer model involving retired and current police supervisors (Steele et al., 2022).

The current evaluation collected data through pre- and post-training assessments conducted with every participant to evaluate the effects of training on individual police officer buy-in to concepts related to procedural justice and community policing. Individual demographics and workplace history were used to increase understanding of the training’s effects. Participant outcomes from a scenario-based simulation were also evaluated to test retention and application of learned skills. Results were evaluated to better understand training outcomes and success in attitudinal adaptation. It was hypothesized that this work would uncover training effects on attitudinal changes of individual officers, and the training would be successful in teaching personality type identification. Lastly, primary qualitative data was collected to gain further insight into the perceived value of the training and overall attitudes towards social calls for change in the profession.
CHAPTER 2: THEORETICAL LITERATURE

To understand the nature of de-escalation training and its role in policing reform, it is vital to review the theoretical foundations of such work and how these principles are incorporated. Procedural justice theory and de-escalation approaches as originated in the healthcare field are central to the literature review that informs the current work. This chapter reviews the origins of modern de-escalation training and provides insight into how such training can inform officer use of force and community engagement.

Procedural Justice

Thibaut and Walker (1975) first defined procedural justice in the context of social and psychological consequences to procedural variation. They suggested that differences in how procedure occurs may affect the social and psychological understanding of the outcome. This conceptualization of decision-making and outcomes first began as a consideration of leadership decisions within organizations and what type of culture or climate is fostered by administrators (Lind & Tyler, 1988), particularly when navigating dispute resolution. Essentially, in the theory of procedural justice, individuals are far more likely to accept the outcomes of a decision if the procedure is viewed as fair. Subsequently, the perception of a fair procedure and fair outcomes allow for authority figures to be viewed as legitimate (Lind & Tyler, 1988).

Given that fairness is central to the theory, the process itself is considered more important than the actual outcome in predicting satisfaction with the encounter (Lind & Tyler, 1988; Tyler 2006). In order for the process to be viewed as procedurally just, and the authority systems themselves to gain or maintain legitimacy, individuals engaging with power structures must perceive: 1) that they have voice or an active role in the process, 2) that the authority figure is neutral or unbiased towards a specific outcome, 3) that the authority will treat individuals with
respect as equal members of society, and 4) that they can trust the authority to act benevolently and fairly (Lind & Tyler, 1988; Tyler, 1989).

Tyler (2006) subsequently asserted that people are far more likely to accept the outcomes of these encounters if the process is viewed as fair. In the context of criminological schools of thought, procedural justice can be primarily viewed as a control theory (Tyler, 1989), in that it emphasizes the distribution of control as the key characteristic informing public perceptions of fairness. For criminal legal systems such as policing to be viewed as legitimate, individuals cannot be simply persuaded to obey or comply; they must desire to cooperate more widely (Beetham, 1991). Only in seeing police as legitimate will the public accept the levels of control enforced through law enforcement procedure. This philosophy of cooperation is central to modern goals of policing and the belief that the key to preventing crime is by earning public support and cooperation through trust; or, as the Peelian principles of policing would state, “to give reality to the historic tradition that the police are the public and that the public are the police” (University of Washington, n.d.).

Of particular importance to modern understandings of procedural justice, particularly in policing, is Lind and Tyler’s (1988) group-value model. This update to traditional procedural justice theory suggests that people are interested in social bonds and belonging, as is supported in other criminological literature (Hirschi, 2001; Laub & Sampson, 2014). It is this commitment to social belonging that subsequently creates a desire to be treated fairly and equally (Lind & Tyler, 1988). Through commitment to social bonds, individuals become dedicated to positive, long-term relationships with authority figures and institutions of power (Lind & Tyler, 1988). As a result, procedural justice is important because procedures are evaluated in terms of what they
communicate about our relationship as a people to figures of authority and governing bodies (Tyler & Lind, 1992).

This is of great importance in the application of procedural justice theory to policing because the presence of law enforcement in communities represents the local and statewide systems that make up the government as elected by the people and representing a broader collective society as a nation. When police who represent these systems treat citizens poorly, it sends a message that the average citizen is not considered to hold equal membership in this society and lacks the voice or equivalent power that is central to procedural justice theory. Police who continue to engage in forceful attempts towards coercion and compliance are subsequently more likely to deteriorate further any public trust in law enforcement (Akinlabi, 2020). Recent work also suggests that these officers may then internalize fears of being perceived as racist because of their use of force, actually leading to lower perceptions of self-legitimacy and greater support for use of unreasonable force, creating a dangerously cyclical nature of police coercion and public harm (Trinkner et al., 2019).

Empirical tests of the group-value model (Tyler, 1989) suggest that issues of neutrality are central to citizens’ perceptions of fairness, and that trust and social standing are particularly salient in judgements about procedural justice and experiences with law enforcement. Additional work has also supported the notion that elements of procedural justice, including fair and respectful treatment, explain significant amounts of individual-level differences in overall trust in law enforcement professionals (Jackson et al., 2012; Schaap, 2018; Sunshine and Tyler, 2003; Wolfe et al., 2016). This psychological model of procedural justice, as opposed to Thibaut and Walker’s (1975) organizational model, provides a wider look at various types of scenarios in which people may engage with authority, particularly law enforcement in voluntary and
involuntary interactions, and how such experiences may impact outcomes and perceptions of policing more generally. Discussed more thoroughly later in this chapter, this updated theory of procedural justice may help explain why socially disorganized communities generally exhibit lower trust in criminal legal institutions, given that strong social ties typically are lacking in these spaces (Hirschi, 2001; Nagin & Telep, 2017; Shaw & McKay, 1942).

More generally, Tyler (2006) argues that procedural justice is about perceived fairness of procedures involved in decision-making and the treatment one receives from the decision-maker. In brief, people simply want an even playing field when being subject to the actions and decisions of authority figures. Subsequently, this logic may reflect why people of color and other disenfranchised communities tend to have lower general perceptions of fairness regarding law enforcement in the United States (Tyler, 2006; Murphy, 2009). Research reinforces this thinking, with empirical studies suggesting that individuals in police-initiated contacts, where law enforcement typically has more discretion, care more about procedure than outcome when considering fairness of the encounter (Murphy, 2009). Generally, when analyses include measures of procedural justice and perceived legitimacy, demographic variables weaken in their predictive effect, suggesting that it is in fact these poor relationships and trust in law enforcement that are the barriers to satisfaction (Tyler, 2006; Tyer & Huo, 2002; Wells, 2007).

Tyler (2006) also argues that to best understand and apply procedural justice theory to policing, we must also differentiate between instrumental and normative compliance. This distinction involves choosing not to break the law based on one’s own self-interest and rational thinking versus feeling a moral or ethical obligation to follow the law, respectively. The modern American justice system is rooted in the notion of instrumental compliance and the belief that people comply solely because of rational choices in which they seek to avoid the painful
consequences of breaking the law (Cornish & Clarke, 1986; Tyler, 2006). It is therefore the goal of procedural justice research in policing to increase institutional compliance and reduce the need for force by creating fair, just, and effective policing practices that reinforce trust between departments and the communities they serve (Jackson et al., 2012; Tyler & Huo, 2002).

**Procedural Justice in Policing**

Shortly after its birth in business administration and industrial-organizational (IO) psychology, the principles of procedural justice quickly integrated into a variety of settings, including healthcare, public safety, and courts (MacCoun, 2005; Thibaut & Walker, 1975; Tyler, 1989). Seeking to establish better understandings of compliance and cooperation, it was first applied to conflict resolution in the policing profession by Tyler and Folger (1980). In policing, the theory of procedural justice initially focused on intradepartmental conflict and how officers engage with superiors. Initial empirical work in this area suggested that when officers feel fairly treated by administration, they tend to act more fairly when dealing with the public (Bradford et al. 2014; De Angelis & Kupchik 2007, 2009; Farmer et al. 2003; Harris & Worden 2014; Tyler et al. 2007; Wolfe & Piquero 2011). Additionally, links have been made between officer workplace stress and use-of-force with citizens (Trinkner et al., 2016).

Despite these origins, procedural justice in policing has recently focused on how law enforcement can more fairly and justly serve citizens during both police-initiated and citizen-initiated encounters. Where most other criminological research seeks to understand the context in which individuals do or do not comply with police orders, procedural justice theory and application seeks to understand why people do or do not comply. Part of this understanding is rooted in an assumption of the theory that fairness, trust, and perceived legitimacy operate and develop in a linear context (Tyler, 1990). As law enforcement engage in procedurally just
behaviors during interactions, citizens begin to trust officers more implicitly and confer upon them legitimacy, and subsequently, compliance and cooperation with the governing power (Tyler, 2006). Figure 2.1 highlights this processual nature of behaviors, trust, legitimacy, and compliance that are central to the application of procedural justice in policing.

**Figure 2.1**

*Procedural Justice Process (Tyler, 1990)*

In these encounters, citizens care less about the law itself, but rather that officers engage in ways that are considered morally “right” and use their power to embody ethical practices (Harkin, 2015; Hough et al., 2010). From this logic around trust and legitimacy stems notions of compliance and cooperation, and why such behaviors are not always granted by the public, particularly in modern America where confidence in law enforcement is reaching all-time lows (Brenan, 2020). When officers’ use of force is not perceived as legitimate, or even legal, in the eyes of the public, it is logical that such public responses to these violations of trust would also not be concerned with compliance or cooperation with the law, especially given that consequences are often distributed unequally among officers using excessive force (Harkin, 2015).

This lack of trust and legitimacy is particularly salient among young people and racial/ethnic minorities. Bolger and Walters (2019) confirm that the cooperation of younger people and minorities is more greatly impacted by perceptions of procedurally just actions by law enforcement, and they experience the greatest subsequent change in conferred legitimacy.
Given that these individuals are the most likely to encounter law enforcement in involuntary interactions, it is important that they be treated fairly, with respect, voice, and neutrality, to promote conferred legitimacy and subsequent compliance and cooperation.

Evidence also suggests that perceptions of police are significantly impacted by one’s perceptions of neighborhood crime (Maxson et al., 2003; Reisig & Giacomazzi, 1998), community disorder (Cao et al., 1996; Reisig & Giacomazzi, 1998), general fear of crime (Cao et al., 1996), and community views regarding how police perform general duties in their area (Weitzer & Tuch, 2004). Additional research from the perspective of previous offenders also confirms that legitimacy often mediates the relationship between procedurally just legal actions and compliance among persons with criminal records (Murphy et al., 2016). Combined, this empirical work not only supports the linear relationship between procedural justice, legitimacy, and cooperation, but also suggests the notion that procedurally just policing is particularly important among these populations who are most impacted by the criminal legal system.

From this theoretical work, it becomes increasingly evident that the justice system must command respect and confer it upon the public to effectively police communities and ensure compliance with the law. Such respect and trust are possible only through procedurally just policing (Hough et al., 2010; Tyler, 1990). Without it, the legitimacy of these governing systems will weaken. Power to enforce the law through coercive means remains, but only through actions viewed as legitimate and morally sound will police gain the respect and subsequent cooperation of the public (Harkin, 2015; Hough et al., 2010). As a result, the United States policing system finds itself in a unique space, having consistently violated the trust of the public, particularly in communities of color, through the historical and contemporary use of excessive force and unjust
procedures. This longstanding history and continued breakdown of public trust reinforces broader legal cynicism, or the belief that police are illegitimate and ineffective at true public safety (Campeau et al., 2021; Sampson & Bartusch, 1988).

The experiences of people of color within the United States are that of an unequal, oppressed group, which has been repeatedly violated by police, reducing the trust, neutrality, and voice that is required of the public to confer legitimacy (Gallagher et al., 2001; Lind & Tyler, 1988). Being treated as a nonequivalent group member in U.S. society, people of color are less likely to view the police as procedurally just and more likely to view them as illegitimate. The many recent instances of unarmed individuals, particularly Black men, being killed by police reinforce the reality that communities of color are not given the same level of justice in policing practices, which has further harmed the ability of law enforcement to repair this trust and gain the respect and cooperation of much of the American public. As noted earlier, it is only logical that violations of trust and power by police would reduce the perceived legitimacy of the American legal system, subsequently lowering the likelihood that the public will respond cooperatively or behave in accordance with the law if police-sanctioned violence is not also appropriately punished (Gallagher et al., 2001; Harkin, 2015).

Criticism of Procedural Justice Theory

Psychological and criminological literature is widely supportive of procedural justice theory and its application toward policing and other criminal legal systems (Tyler & Folger, 1980; Tyler & Huo, 2002; Tyler & Lind, 1992). However, several critiques of procedural justice and how it is used to measure police efforts have been countered against the traditional logic. To formulate a complete picture of procedural justice theory, this section highlights the primary criticisms of procedural justice theory’s application to law enforcement.
Empirical literature in the field supports the notion of a strong positive relationship between perceptions of procedural justice, trust and legitimacy, and compliance in a linear manner (Bolger & Walters, 2019; Gau et al., 2012; Tyler & Wakslak, 2004). While intuitively logical, this linear assumption still hinges primarily on cross-sectional research and does not take into account other sociopolitical factors that may influence perceived legitimacy of law enforcement. Harkin (2015) argues it is authority that creates legitimacy, not the other way around, as is posited in procedural justice theory. While procedure is still important, it is the power differentials created by the mere authority given to law enforcement as representatives of the government that also create compliance with or without legitimacy. This authority without legitimacy through procedurally just actions explains why members of disenfranchised communities may still show support for the legal systems that keep them oppressed.

Attempts to utilize longitudinal and lagged-cross sectional measures of the processual nature of procedurally just action, legitimacy, and cooperation, as posited by procedural justice theory (see Figure 2.1), have been more mixed than previously discussed empirical work. Walters (2018), using the Pathways to Desistance dataset (Mulvey, 2016), found that legitimacy beliefs toward police at age 18 significantly predicted procedural justice attitudes at 19, antithetical to what is proposed in procedural justice theory (Tyler, 2006). Pina-Sanchez & Brunton-Smith (2020) similarly attempted to provide support for temporal ordering of these concepts and found no predictive effects of procedural justice on future perceived legitimacy. Nagin and Telep (2017) similarly argued that there is not enough empirical evidence to suggest causation, and that other variables, such as community-level factors, may impact the relationship between procedural justice and the processual nature of legitimacy.
Critiquing literature also suggests that a reverse pathway (perceptions of police affecting interpretations of interactions) is feasible, and that both concepts (i.e., procedural justice and legitimacy) may represent proxies or factors contributing to overall perceptions of trust, respect, and status that are central to the theory (Lind & Tyler, 1988; Tyler, 1989). Procedural justice theory seems to view society as a monolith that either confers legitimacy or does not; however, this theoretical perspective ignores the conflict inherent in the cultural plurality that defines United States history (Schaap & Saarikkomaki, 2022). In addition, these authors argue that beyond key missing sociocultural factors, there should be skepticism as to if procedural justice is a determinant of legitimacy or simply just a component of legitimacy (Schaap & Saarikkomaki, 2022). Work by Kochel (2012) in Trinidad and Tobago similarly suggests this multi-level nature of procedural justice theory, indicating that collective efficacy of a community and the role of police in contributing to this phenomenon are greater mechanisms through which to establish working relationships, compared to emphasizing legal legitimacy. Additionally, attempting to use attitudes (perceived legitimacy) to explain other attitudes (perceptions of procedure) is particularly weak logic and empirically difficult to measure, especially for a theory that has been reinforced almost exclusively by cross-sectional work (Pina-Sanchez & Brunton-Smith, 2020; Schaap & Saarikkomaki, 2022).

Schaap and Saarikkomaki (2022) also argue that to delineate process from outcome in police encounters, as is central to concepts of procedural justice theory, is simply a “mirage.” Policing is a unique space within the criminal legal system, as officers often get to initiate interactions and single-handedly determine the outcomes. Additionally, police often view their primary function as reducing crime, but actual crime rates seem to have little correlation with public perceptions of procedural fairness among police (Tyler, 2017), suggesting that there are
other variables that impact public perception. Especially in recent years, with the rise of social media and mass media coverage of national news, it is unrealistic to expect singular personal interactions with law enforcement, procedurally just or not, to have a greater influence on perceived legitimacy than a lifetime of exposure to viral injustices (Tyler, 2017). It remains important to evaluate how procedural justice theory is utilized in modern policing research and within cross-sectional contexts.

The current study adds to previous work that has evaluated officer perceptions of procedural justice issues (Schaefer & Hughes, 2016; Van Craen & Skogan, 2016) to understand if training is one way in which we can improve behaviors and subsequently granted legitimacy. It is natural that de-escalation theories and work within the policing context utilize procedural justice in attempts to reduce forced compliance and increase legitimate cooperation of the public. As procedural justice theory focuses primarily on how citizens confer legitimacy, it follows that officer buy-in to these concepts can subsequently impact their interactional behaviors and how they seek out compliance and cooperation from the public. The following section evaluates de-escalation theories that originate in other fields and consider how theoretical support for procedural justice, legitimacy, and cooperation may be translated into the de-escalation training efforts of American police agencies.

**De-escalation Training**

While there is plenty of literature exploring how de-escalation tactics are applied to the field of policing (see Chapter 3), less is known about the theoretical nature of this practice and how it has been transferred from the healthcare field. De-escalation practices began primarily in the healthcare space for exploring best practices for combatting violence (including both verbal and physical aggression) from patients, particularly within in-patient mental health settings.
(Infantino & Musingo, 1985; Inglis & Clifton, 2013; Kaplan & Wheeler, 1983). Utilizing concepts from public health prevention literature (Brantingham & Faust, 1976), the goals of de-escalation training center around violence prevention and avoiding further trauma and victimization for both patients and staff (Hallett & Dickens, 2017).

Despite the widespread interest in de-escalation techniques and protocols, particularly in the healthcare field, there is wide variety in how de-escalation is defined, practiced, and implemented across fields, although some commonalities exist. Most recorded programs identify the need for addressing heightened or agitated behaviors that may escalate into violence, including threats or a lack of self-control (Drach-Zahavy et al., 2012; NICE, 2005). In addition to recognizing these instances of potential escalation, de-escalation programs are also focused on the staff developing practical skills and establishing adapted behaviors for responding in ways that do not heighten the feelings and behaviors of the subject (Inglis & Clifton, 2013; Whittington & Richter, 2005). Effective de-escalation training also highlights the temporal and environmental contexts that must be considered when practicing the self-regulation, awareness, and emotion work central to appropriate behavioral responses by staff members (Deveau, 2021; Hallett & Dickens, 2017). In promoting these skills, de-escalation training primarily focuses on techniques such as communication skills, understanding nonverbal communication, self-awareness and regulation, cultural awareness, and identifying spaces of conflict (Hallett & Dickens, 2017; Zweibel et al., 2008).

Novaco (1978) emphasized that these situations and spaces are interpreted based on the specific context; therefore, de-escalation training should focus on awareness of how the trainees’ preconceived ideas or prior experiences influence what they bring to the table. This applies both to the subject who is escalating and the authority figure meant to respond, as they both must
interpret each other's responses accurately and respond accordingly. Inglis & Clifton (2013) conceptualized the pathway from stress/arousal to interpretations of situations through a lens of anger or hostility, and subsequently, escalating physical behaviors. Recently, Deveau (2021) argued that this symbolic interactionist lens of de-escalation is particularly salient for law enforcement efforts. Symbolic interactionism is a sociological framework (Goffman, 1959), positing that interactions and presentations of self are dependent on how individuals interpret the world around them and then form meaning. This theory is the crux of de-escalation as described thus far, as the prior lived experiences and self-identity of both the subject and the authority figure impact how they behave and respond within an interaction and perceive their social standing (Berring et al., 2016; Deveau, 2021; Goffman, 1959).

Perceptions of police legitimacy and procedural justice (Tyler, 2006) may also impact a subject’s interpretations of a police contact, particularly if the individual is part of a racial or ethnic group that can anticipate disrespect from law enforcement, which is a common reason for escalation (Whittington & Richter, 2005). In these contexts, many of the de-escalation tactics used assume that these escalated individuals remain rational beings who will de-escalate if it serves their best interest (Cornish & Clarke, 1986; Duxbury, 2002). However, there are many reasons that may not be the case, such as historical sociopolitical injustice against a group of people or individual level characteristics, including personality type (uniquely addressed in DISC de-escalation training), cognitive disability, or serious mental illness (Duxbury, 2002). In these instances, it becomes clear that de-escalation through a rational choice perspective, which focuses on perceived outcome rather than process (Cornish & Clarke, 1986), is not going to result in compliance or cooperation. Rather, a long-standing barrier of mistrust and escalations of harm results in the subject having an immediate defensive response associated with stress,
trauma, and subsequent escalations of behavior (Richter & Whittington, 2006). Conflict then results once the subject interprets the contact with law enforcement as not meeting the expectation of procedural fairness and trust.

While beneficial in the policing space, these theoretical principles of de-escalation work best in settings where the subject is known well, when changes to demeanor and preconceptions are all known to the authority figure and can be considered when determining how to respond appropriately. Such is not typically the case in policing, where officers are often responding to already escalated situations, often with little insight to the full nature of the situation, or engaging individuals they do not know in involuntary interactions (e.g., traffic stops, arrests, etc.). As a result, law enforcement often relies on a core set of responding behaviors, or they make assumptions about why the subject is escalating (Duxbury, 2002), which is antithetical to the principles of de-escalation outlined above. The current study explored the accuracy of how law enforcement interpret and respond to specific personality types or characteristics by evaluating a training in which officers are taught to quickly identify distinct personality types and engage in specific responses based on the identified personality.

De-escalation training was first adapted to policing beginning in the late 1970s, initially for managing domestic violence calls for service (Bell, 1979). In recent years, interest in de-escalation skills among officers has increased, as evident by the advent of crisis intervention teams and public calls for increased training (Spielfogel & McMillen, 2017). In many of these trainings, de-escalation has been viewed primarily as an enforcement tool, as the use of force broadly is a lawful and normal means through which police gain compliance. In basic training, officers consistently receive more training in these enforcement tactics and physical applications than in any social or service skills, limiting the extent to which they can learn and practice
effective de-escalation (Deveau, 2021). However, application of force in the field is subjective and can be applied discriminately dependent on officer perceptions, highlighting the need for a more comprehensive, evidence-based, public health approach to de-escalation (Deveau, 2021; Fielding, 2002).

A comprehensive review of the available policing de-escalation literature by Bennell and colleagues (2021) revealed that the most successful training in addressing departmental use of force emphasizes the interpersonal aspects and dynamic nature of the encounters police officers experience. In utilizing diverse training scenarios, massed and spaced practice of social skills, buy-in from leadership, and a focus on adult learning principles, de-escalation training can improve the quality of police-citizen interactions and increase the number of tools officers possess in identifying differences in situations and subject needs (Bennell et al., 2021). Such in-service training has been found to be a significant factor when considering levels of police force (Lee & Vaughn, 2010).

Additional research on the effects of education on use of force reaffirm the importance of training, finding that college educated police are less likely to fire their weapons, use unreasonable force, or receive citizen complaints (Carter et al., 1989; Fyfe, 1988; Stickle, 2016; Worden, 1996). Given the evidential importance of education, basic training, and in-service training, de-escalation programs that emphasize the need for social skill development are vital to law enforcement agencies’ ability to reform in their use of physical force. The next chapter reviews several evaluations of these trainings, as well as how procedural justice and de-escalation principles can be measured empirically within normal operations of police agencies. The current study adds to this work by providing an evaluation of de-escalation training across
several agencies in the United States, to determine how educational and social factors impact buy-in to procedural justice concepts.
CHAPTER 3: PRACTICE AND APPLICATION

Despite the increasing popularity of procedurally-just policing and de-escalation trainings for law enforcement, relatively little empirical work has been completed to establish the empirical validity of these initiatives (Engel et al., 2022a; Todak & James, 2018). The available literature focuses mainly on mental health contexts (Engel et al., 2022b; 2022a; Price et al., 2015) and on citizen perceptions resulting from de-escalation tactics. This chapter reviews the current state of procedural justice and de-escalation application in the field of policing. The current study sought to advance this literature by providing greater insight into how training impacts officer behavior and attitudes and how said training can be utilized across agencies.

**Procedural Justice**

Empirical testing of procedural justice theory has typically sought to evaluate the elements of procedural justice as outlined by Tyler (1990), including officers providing procedurally just policing, which subsequently leads to citizen perceptions of legitimacy and compliance. As a result, much of this work is focused on citizen perceptions and the presence (or lack thereof) of procedural justice concepts in police-citizen interactions (Mazerolle et al., 2013b; Murphy et al., 2014; Sunshine & Tyler, 2003). Sunshine and Tyler (2003) sought to understand the role of procedural justice in police engagement and citizen perceptions among New Yorkers near and around the events of the September 11th attacks. Their findings confirmed the core principles of procedural justice theory, suggesting that legitimacy has a strong influence on the public’s reaction to the police and is strongly associated with both compliance and cooperation (Sunshine & Tyler, 2003). Their work also indicated that citizens are more likely to allow “intrusive police tactics” when the police are viewed as legitimate. Such implications are central to the importance of incorporating procedurally just behaviors into policing and can also
be used to reinforce buy-in from officers who fear procedural justice and de-escalation may take away some of their powers.

Several other studies have reinforced the empirical legitimacy of procedural justice theory, finding that individuals exposed to procedurally just policing are consistently more likely to comply with directives and cooperate more willingly (Braithwaite & Makkai, 1994; Jackson & Bradford, 2010; Johnson, 2004; McCluskey, 2003; Murphy et al., 2008). A comprehensive systematic review of the literature by Mazerolle and colleagues (2013a) confirmed these promising results, finding that legitimacy interventions in policing had large effects on overall community satisfaction and confidence in the police. Donner and colleagues’ (2015) meta-analysis provided additional support for this argument, revealing that assessments of police are improved when citizens feel they have been treated fairly and with procedural justice.

Conversely, the extant literature has also confirmed that more heavy-handed tactics by law enforcement are more likely to result in escalations of the encounter and community resistance to compliance and cooperation (Mastrofski et al., 2002; McCluskey, 2003). In procedural justice theory, these heavy-handed tactics suggest to the public that they are not equivalent group members (Haberman et al., 2016; Lind & Tyler, 1988; Meares, 2015; Ratcliffe et al., 2015; Tyler, 1989), and therefore, they are not given the respect and voice they deserve. As previously mentioned, such findings should provide evidence to law enforcement that incorporating procedural justice models into training and practice may enhance overall compliance and cooperation, increasing their ability to effectively and proactively police.

Despite these promising empirical evaluations of procedural justice theory, some mixed findings suggest alternative models and mediating factors in the procedural justice-legitimacy-cooperation pathway. Dai and colleagues (2011) posited that a feedback loop may exist in police-
citizen encounters, in which disrespect from either party may negatively impact the overall interaction, reducing the perceived level of procedural fairness, even if the citizen initiated the escalating or disrespectful behavior. In the same vein, Skogan (2006), posited that the notion of globalized legitimacy from the public cannot be achieved through individual officer-citizen interactions. Simply acting in a satisfactory manner within a singular encounter, the author found, did not significantly impact overall perceptions of law enforcement. However, negative, disrespectful, or unfair behaviors by an individual officer can reinforce negative perceptions (Skogan, 2006).

This asymmetrical effect of positive and negative police behaviors has been affirmed in several other works (Bradford et al., 2009; Maguire et al., 2017; Warren, 2011), which indicate that high-profile cases of injustice often covered by national news have a much greater effect on public perceptions of police than do individual encounters. Warren’s (2011) survey of Chicago residents found that people who hear negative stories about police encounters from family or friends are nearly four times as likely to perceive disrespect in their own encounters. Maguire and colleagues (2017) recently established greater support for this asymmetrical effect of negative encounters. Utilizing video simulations of traffic stops that reflect positive, negative, and neutral police behaviors, the authors found that while both positive and negative behaviors have effects on compliance in the logical direction, the effects of negative behaviors were larger and may undermine willingness to cooperate more so than positive behaviors encourage compliance (Maguire et al., 2017). Such analyses suggest that negative encounters and police behaviors viewed as unjust have a particular salience on public opinion, adding acute nuance to the tenets of procedural justice theory. This is of particular interest for the current study, which
acknowledges the harm done by high-profile cases of injustice that have sparked the increased calls for de-escalation training.

In addition to such works evaluating the legitimacy of the procedural justice pathway and core elements of the theory, a significant body of literature has also evaluated if sociodemographic characteristics, offending status, and interaction-level variables impact citizen perceptions (Bolger & Walters, 2019; Murphy et al., 2014; Papachristos et al., 2012). In the first known randomized controlled trial to evaluate procedural justice and legitimacy in policing (Queensland Community Engagement Trial (QCET)), Mazerolle and colleagues (2013b) examined the impact of procedurally just behaviors during traffic stops on both specific and global perceptions of police. The findings of this seminal work suggest that citizens who perceive encounters to be procedurally-just have more positive specific and global views of policing. Specifically, the more procedurally-just the officer’s behavior in an encounter, the more likely that the citizen viewed police as legitimate (Mazerolle et al., 2013b).

Using the same dataset (QCET), Murphy and colleagues (2014) similarly found that trust and confidence in police, the mediators between procedurally just behaviors and compliance, were significantly increased by the presence of procedural justice techniques by officers. Such findings were independent of demographic characteristics. However, it is important to note that studies also discovered the presence of procedurally just techniques or citizen satisfaction are not enough to encourage compliance. Trust and confidence in the police must be present, as highlighted in Murphy et al. (2014), to mediate the pathway between procedurally just action and compliance, reinforcing the principles of procedural justice theory (Lind & Tyler, 1988; Tyler, 1989). While the findings of this RCT are particularly salient in the literature, it is vital that work
continues to be done in the American policing system to better understand how the unique history of racial oppression in the United States may impact this relationship.

When evaluating specific sociodemographic characteristics that may impact these community-level perceptions of procedural justice and fairness, the literature is far more mixed. Evaluations of offenders reinforce the theoretical logic of procedural justice theory (Tyler, 1989), revealing that even among gun offenders (Papachristos et al., 2012) and probationers who owe restitution (Gladfelter et al., 2018), individuals are more likely to comply with the conditions of their sentence and with the law more broadly when they perceive they have been treated fairly by members of the system and believe in the legitimacy of the law itself. However, Papachristos and colleagues (2012) also found that among gang-affiliated individuals, perceived legitimacy of the law was lower, suggesting that tight anti-social bonds with their own laws and unspoken codes (Anderson, 1999) may impact global perceptions of the criminal legal system. The legal cynicism associated with living in high-crime neighborhoods that abide by their own codes and subcultural norms may also impact these perceptions of police legitimacy and the ability of communities to trust and depend on law enforcement (Carr et al., 2007).

Sociodemographic characteristics, such as age, sex, and race and/or ethnicity, have also been evaluated empirically for their mediating and moderating effects on the procedural justice to compliance pathway. Recent works suggest that both age and race/ethnicity may have effects on the likelihood of individuals perceiving the police as trustworthy and legitimate (Bolger & Walters, 2019; Wheelock et al., 2019). A meta-analysis of 56 studies by Bolger and Walters (2019) found that younger participants’ and racial and ethnic minorities’ levels of cooperation were more strongly impacted by perceptions of procedural justice and overall treatment. This may be a result of the over-policing frequently experienced by minority groups and young
people, reflecting the importance of improving perceived fairness of law enforcement and equality in their protocols and practices. No sex-related differences were found between men and women. Wheelock and colleagues (2019) similarly found that Black respondents were generally far less satisfied with police than their white or Latinx colleagues, likely a result of the unique challenges faced by the Black community under the American criminal legal system. However, procedural justice and perceptions of fair and equal treatment in this study explained much of the variance in overall satisfaction; the racial coefficient was reduced to non-significance when accounting for perceptions of safety around police (Wheelock et al., 2019). While this literature on the impact of sociodemographic variables is relatively limited, it is likely to play a key role in understanding the long-term impacts of racial oppression on police legitimacy.

Lastly, it is important to note the empirical evaluations of police training and practices that inform citizen perceptions of procedural justice. It has become increasingly common to evaluate officer decision-making during community encounters and empirically measure the effects of procedural justice practices on interactional outcomes (Skogan et al., 2015; Weisburd et al., 2022). Given the origins of both procedural justice and de-escalation in the fields of psychology and public health, earlier works on procedural justice in policing focused primarily on engagement with individuals in mental health crises (Watson & Angell, 2007). Such studies suggest that both situational and officer characteristics may affect how officers respond to persons with mental illness, but little is known about how officers weigh these factors in decision-making. The first few seconds engaging with someone with mental illness may be central to this process, and a rush to force compliance may lead to escalation when engaging with persons in a psychiatric crisis (Ruiz & Miller, 2004; Watson & Angell, 2007).
Decision-making processes among law enforcement have also been evaluated in terms of the extent to which procedural justice is valued by law enforcement officers and administrations, leading to subsequent buy-in and standard operating procedures that include procedural justice principles. Studies contained in Donner and colleagues’ (2015) meta-review suggest that procedural justice is a significant factor in examining decision-making in police agencies, with included works indicating that adherence to procedural justice principles within the agency may be associated with greater organizational commitment, satisfaction with decisional outcomes, and willingness to report misconduct. These findings suggest that not only does procedural justice impact interactions with the community, but it is also central to overall organizational structure and buy-in to these concepts (Donner et al., 2015).

Despite these positive findings on the impact of implementing procedural justice practices, Zamir and Harpaz (2014) conversely found that police leadership in the Israeli National Police tended to view effective and aggressive crime control as a greater predictor of granted legitimacy than individual citizen encounters. While this may represent a cultural finding, it supports previously mentioned literature highlighting the importance of avoiding heavy-handed tactics that reduce perceptions of procedural justice and fairness (Mastrofski et al., 2002; McCluskey, 2003). However, recent findings on the importance of procedural justice also emphasize that buy-in to these concepts increases overall officer satisfaction and engagement with the community (Donner et al., 2015). This discrepancy between officer perceptions of the value of procedural justice and the empirical support the theory has received was central to the current study. Through pre- and post-training assessments of procedural justice buy-in from officers, the current study explored how these perceptions impact success in implementing de-escalation skills and overall willingness to adapt standard practices.
Research has also begun to look at training implementation and evaluate the outcomes of incorporating procedural justice principles into practice (Dai, 2021; Skogan et al., 2015; Weisburd et al., 2022). Such work has had promising implications, finding substantial differences between officers who receive training related to procedural justice and those who do not. Trained officers were found to have greater overall buy-in to procedural justice concepts and engagement in procedurally just behaviors during citizen encounters (Skogan et al., 2015). In a quasi-experimental evaluation of procedural justice training for the Chicago Police Department, Skogan and colleagues (2015) found that exposure to training increased overall support for procedural justice principles. Similarly, Dai (2021) evaluated training in Norfolk, Virginia, finding that training led to short- and long-term changes in officer buy-in and perceptions of procedural justice elements.

Both studies (Dai, 2021; Skogan et al., 2015) also found support for the use of body-worn cameras (BWCs) as a means for enhancing procedural justice behaviors among officers. The findings indicated that the use of cameras was associated with higher levels of procedurally just behaviors during citizen interactions, and cameras may help reinforce the use of such skills. Recent research has proposed methodologies for analyzing BWC footage for identifying escalations of force (Terrill & Zimmerman, 2022), but such work is beyond the scope of the current study.

Such findings in favor of incorporating procedural justice practices into policing also have been supported within crime hot spots. A recent study by Weisburd and colleagues (2022) randomly allocated known crime hot spots across three cities to utilize procedural justice practices, finding that training not only increased knowledge of procedural justice, but also increased use of procedural justice principles in the field and led to fewer arrests. Residents in
the procedural justice hot spots were also significantly less likely to report perceiving the police as harassing or using unnecessary force (Weisburd et al., 2022). This study, having taken place following the COVID-19 pandemic, represents only the beginning of a collective understanding of policing and how empirically informed changes can be made using procedural justice principles.

Empirical evidence of procedural justice theory’s application in policing is both promising and widespread, looking at both citizen and officer perceptions, overall effects on outcomes and use of force, and implications for developing trust and legitimacy (Mazerolle et al., 2013a; 2013b; Sunshine & Tyler, 2003; Weisburd et al., 2022). The current study expands upon this knowledge by evaluating individual level changes in officer buy-in and skill using these concepts following training exposure.

**De-escalation Training**

In addition to understanding the ways in which the principles of procedural justice theory are incorporated into policing and its potential effects, a significant body of literature has also sought to evaluate de-escalation training more explicitly in terms of the ability of officers to learn and utilize such skills. These efforts have been expedited by recent concerns over the use of excessive force by American law enforcement, particularly in cases leading to the death of unarmed men, particularly Black or African American citizens (Bogel-Burroughs, 2020; Schaap & Saarikkomaki, 2022). The current section highlights the progression of de-escalation training, from healthcare spaces into how law enforcement engages with mental-health related incidents and overall community engagement.

Having originated in the public health context (Infantino & Musingo, 1985; Inglis & Clifton, 2013; Kaplan & Wheeler, 1983), most de-escalation training evaluations have also been
conducted in this space. Despite its early use in this field, generally little is known about the effects of de-escalation training on long-term behavior adaptations and success in avoiding escalating patient responses (Price et al., 2015). A systematic review of training effectiveness among mental healthcare staff compiled 28 studies (Price et al., 2015). However, across the studies, there were wide ranging training protocols, effect sizes, and mixed outcome results, leading the authors to be unable to make any conclusive statements about the effectiveness of de-escalation skills training or attitudinal modifications (Price et al., 2015).

Similarly, Engel and colleagues (2020) sought to conduct an updated systematic review of de-escalation training, hoping to find support for the use of this approach in policing. Finding not a single eligible policing study, the authors conducted the analysis using nursing and psychiatry literature. Promising outcomes related to attitudes and perceptions toward de-escalation, and self-reported use of de-escalation skills, were reported consistently, but some studies also reported diminishing effects over time (Engel et al., 2020). Despite the lack of police training included in the review, this study is still one of the primary sources of empirical support for de-escalation training for law enforcement. The decades of literature covered by these reviews indicate promising effects of de-escalation training on practitioners’ attitudes and behaviors, but significant room for inquiry remains concerning how such trainings can be adapted for law enforcement and contribute to long-standing change within the criminal legal system.

The advent of inter-agency collaborative efforts for intervening in community crises, such as through Crisis Intervention Teams (CIT) and Mental Health Interventions Teams (MHIT), have provided a unique opportunity to bridge the gap between the empirical healthcare literature and policing, as it pertains to de-escalation skills. Several evaluations have been
conducted on these intervention team programs in efforts to understand the efficacy of incorporating mental health practices into police work (Canada et al., 2012; Herrington & Pope, 2014). In the United States, an evaluation of Chicago police officers found that those individuals trained to respond to mental health calls as part of a CIT consistently reported: 1) conducting more comprehensive risk assessment on the scene, 2) being able to identify the specific response tactics they utilized, and 3) utilizing a greater range of outcomes beyond hospitalization and arrest (Canada et al., 2012). Interviews with officers suggested that the training and exposure associated with being on a Crisis Intervention Team led to a wider array of skills that they felt comfortable using during mental health crisis calls (Canada et al., 2012). A systematic review and meta-analysis of the Memphis model (the most commonly utilized CIT program) found that officers increased their use of options (such as medial transports), but null effects were revealed regarding arrest rates and officer safety (Taheri, 2016). Such findings support the notion that de-escalation training provides tools for the metaphorical toolbox that an officer selects from when deciding how to approach any encounter, but more evidence is certainly needed regarding behavioral and criminal legal outcomes.

Herrington and Pope (2014) conducted a similar study in Australia, evaluating the impact of MHIT training on officer use of force. Through interviewing officers from these MHIT teams who had been involved in mental health-related incidents, the authors found significant shifts in officer perceptions and approaches to mental health events. Additionally, MHIT training appeared to result in a significant increase in overall officer confidence entering mental health crises, and subsequently, the time they spent speaking to and de-escalating the person in crisis (Herrington & Pope, 2014). The findings from these two studies suggest that familiarity and proficiency with de-escalation techniques can significantly alter both attitudes and behaviors of
law enforcement, particularly in the context of working with escalated individual experiencing a mental health crisis (Canada et al., 2012; Herrington & Pope, 2014). Such promising evidence suggests that de-escalation training may also be helpful when engaging with the general population who may not be experiencing the same cognitive and emotional difficulties as persons with serious mental illness.

Several studies have evaluated de-escalation in police-only contexts, separate from the scope of mental health crises (Goh, 2021; McLean et al., 2020; Todak & James, 2018). However, the relatively new push for these programs at the national level has limited what is known about de-escalation in the general policing literature. Given the significant overlap between de-escalation training and procedural justice principles (Todak & James, 2018), the available literature highlighted thus far illustrates why such concepts are important to modern policing. However, the varying models of de-escalation training, as provided across the United States and globally (including different levels of dosage, administrative involvement, varying outcome measures, etc.), have made it difficult for generalizable effects to be understood (Nagin & Telep, 2017). The following studies provide insight into what is known about individual de-escalation training and city-specific outcomes. The current study built upon this available literature by evaluating the National De-escalation Training Center’s comprehensive dataset, to determine effectiveness of de-escalation training as provided in a consistent manner across several agencies in the United States.

In evaluating the use of de-escalation tactics without exposure to any training, Todak and James (2018) conducted ride-alongs with law enforcement in Spokane, Washington. Using key de-escalation tactics established previously by officers (Todak, 2017), the authors found that officers most commonly utilized “respect” (engaging in a respectful tone), “humanity” (avoiding
“cop talk” and speaking to the citizen as an equal), and “honesty” (explaining the legal rights of both the citizen and officer), but encounters were most likely to be resolved successfully when “calm” (keeping one’s own emotions in check) and “humanity” were used (Todak, 2017; Todak & James, 2018). This highlights that some officers are likely already engaging in attempts to de-escalate situations based on their prior knowledge and experience, but such use is discretionary and not necessarily rooted in any one valid or reliable training methodology.

Evaluations of specific training programs such as Verbal Judo (Giacomantonio et al., 2020), PERF’s ICAT (Engel et al., 2022a; 2022b; Goh, 2021), and Tact, Tactics and Trust (McLean et al., 2020), as well as city-specific trainings (White et al., 2021a; 2021b), have also been conducted in an attempt to find the most effective and efficient de-escalation model. White and colleagues (2021a; 2021b) evaluated de-escalation training designed for Tempe, Arizona, surveying over 100 officers on their experiences with training and utilizing the skills learned. De-escalation training in Tempe was found to increase trained officers’ use of de-escalation skills, such as compromising, prioritizing officer safety, and knowing when to walk away (White at al., 2021b). Officers were all generally supportive of continuing de-escalation training, and they acknowledged regularly using related skills, such as active listening and open communication (White et al., 2021a).

This study also evaluated officer sociodemographic characteristics to determine if such variables had effects on training attitudes. White and colleagues (2021a) found that while no differences existed across gender or seniority, Black and Hispanic officers rated non-threatening body language as significantly more important in avoiding escalation than their white counterparts. Overall, these findings emphasize the value of training in shaping attitudes, which subsequently influences future behavior. This work also highlights that de-escalation training can
best be marketed towards law enforcement as a tool for preventing risks to personal safety that may come from escalated encounters (White et al., 2021a).

Verbal Judo, as originally established in the 1980s, has been widely distributed across agencies in the U.S. and Canada. A recent evaluation of the program in Halifax, Nova Scotia included video-recorded simulation scenarios between a matched sample of officers who did and did not receive the training (Giacomantonio et al., 2020). The evaluation found no significant difference between groups in their use of force, but trained officers did acknowledge they had learned new skills and rated the program positively. Such findings suggest a modest effect and initial indications that de-escalation training programs may result in meaningful changes to attitudes and behaviors (Giacomantonio et al., 2020).

McLean and colleagues (2020) conducted an evaluation of the T3 (Tact, Tactics, and Trust) social interaction training program initially developed by the U.S. Defense Advanced Research Projects Agency. Using a randomized controlled trial in Tucson, AZ, and Fayetteville, NC, the authors evaluated pre- and post-training data on attitudes and perceptions of training, as well as agency-level use of force rates. The findings suggested the T3 program may have a significant effect on procedural justice prioritization among officers, and that dosage effects should be evaluated further (McLean et al., 2020). However, the amount of use of force incidents remained static from the pre- to post-training period, suggesting no effect of the training on the number of reportable incidents (McLean et al., 2020). This study represents one of the first RCTs to evaluate this type of training for law enforcement and should be replicated in additional agencies to evaluate the effectiveness of T3 more holistically.

The last major de-escalation training program that has received significant attention is the Police Executive Research Forum’s (PERF) “Integrating Communications, Assessment, and
Tactics (ICAT).” This program emphasizes critical decision-making in crisis situations and the use of situational-based learning (PERF, 2016). An evaluation of ICAT in Camden County, NJ, found little effect of the training on individual-level use of force, but when compared to a synthetic control, the training did have a large negative effect on serious use of force across the county (Goh, 2021). Results from a more recent stepwise RCT of the program in Louisville, Kentucky (Engel et al., 2022a) revealed a significant reduction in use of force counts following training, as well as reductions in officer and citizen injuries.

In sum, analyses suggest a robust and consistent impact on use of force counts due to exposure to ICAT (Engel et al., 2022a). Researchers in Louisville also conducted surveys with supervisory-level officers to explore the relationship between administrative buy-in and officer incorporation of learned skills into routine practice (Engel et al., 2022b). Most supervisors agreed they had received sufficient training to oversee de-escalation efforts, but nearly half (41%) reported rarely engaging with officers about the skills. Combined, these findings suggest that while de-escalation training may have meaningful effects, administrative and officer buy-in are both necessary for effective implementation and sustainability (Engel et al., 2022b).

The current study adds to this body of literature by conducting the first quasi-experimental evaluation of de-escalation training provided by the National De-escalation Training Center (NDTC) across two regional offices. In utilizing data from several trained agencies across the United States, the current work reinforces the findings of these individual agency-level evaluations and provides insight into the newest available de-escalation training. Training principles and practices of the NDTC are highlighted in the following section, and data collected from across two major regional centers were utilized to evaluate the impact of training on officer perceptions and acquisition of de-escalation skills.
National De-escalation Training Center Principles and Practice

The National De-escalation Training Center (NDTC) is a non-profit organization headquartered at Wayne State University in Detroit, Michigan. The organization primarily serves public sector law enforcement, but it also provides additional training to the private sector upon request (NDTC, 2022). The organization consists of seven Regional Centers across the United States that serve agencies within their jurisdiction, including Region 7 housed at the University of New Haven.

The goals of NDTC are to establish standardized, evidence-based training for law enforcement agencies nationwide and create opportunities for positive police-citizen outcomes (NDTC, 2022). As a centralized training structure, NDTC allows for a comprehensive evaluation of training across agencies and geographical locations, increasing the external and internal validity of their findings (Shadish et al., 2002; Steele et al., 2022). However, the localized nature of the various Regional Centers allows for training to be personalized or adapted in accordance with each agency’s needs and experiences. As emphasized by Steele and colleagues (2022), “reliance on [Regional Training Centers] rather than a single central location will encourage the development of best practices and the sharing of expertise across the network” (p. 18).

NDTC conducts de-escalation training based on the DISC personality assessment model developed by Marston (1928). The original model provided four primary personality/behavioral templates, including dominance, influence, steadiness, and conscientiousness. Under an exclusive licensing agreement, the NDTC utilizes the adapted DISC Esoterica®, developed in 2015 at University of South Florida in conjunction with the Defense Intelligence Agency, which now includes the 4 primary personality styles and 26 more nuanced subtypes (Guarnieri, 2018; NDTC, 2022). The DISC Esoterica® model creates a personality matrix based on two
dimensions – whether the person is task-oriented or people-oriented, and whether they are introverted or extroverted. Based on these dimensions, people may either be classified as D (extroverted, task-oriented), I (extroverted, people-oriented), S (introverted, people-oriented), or C (introverted, task-oriented).

The training begins with the principles of procedural justice, emphasizing the importance of recognizing behavioral states and personality, while learning to tailor responses accordingly (Guarnieri, 2018). In doing so, this training helps officers maximize the effectiveness of their responses to escalating situations with the public and enhance general awareness of de-escalation as an evidence-based practice (Steele et al., 2022). The NDTC training is certified by the International Association of Directors of Law Enforcement Standards and Training (IADLEST) and is approved by the Department of Justice (DOJ) as a level three de-escalation program.

In 2021, the NDTC Regional Center housed at Fort Hays State University received a grant of $1.25 million from the Department of Justice’s Office of Community Oriented Policing Services (COPS) to further their mission. In addition, in 2022, the Region 7 headquarters at the University of New Haven received another $1 million grant to expand the work of the NDTC in the Northeast. The current study was funded by the grant allocated to Fort Hays University and utilized Region 7 as a hub of data collection and analysis. Data from Region 2 was also incorporated into the final analyses.
CHAPTER 4: METHODOLOGY

The current study builds upon existing gaps in the available literature and the current work of the National De-escalation Training Center (NDTC) by furthering a multi-agency understanding of de-escalation training data. Exploratory qualitative work and new post-test assessments were implemented to supplement pre-existing, national-level data collection tools and analyses established by NDTC. In utilizing a mixed methods approach and including both primary and secondary data, the current study advances available knowledge related to de-escalation training for law enforcement. Such efforts that include multiple agencies across several states are not yet present in the training literature. This work analyzed outcomes of several agencies at the aggregate level and provided nuanced meaning to the experiences of participating trainees from NDTC Regions 2 and 7 (Northeast and Central/Midwest\(^1\)). In particular, the incorporation of semi-structured interviews and field observations introduced a process that is frequently missing in the de-escalation literature.

The proposed work centered around five primary research questions for studying both individual and agency level data using quantitative and qualitative analysis. The value of this research lies in the ability of NDTC data to include several agencies’ outcomes in one dataset, along with the introduction of qualitative interviewing and training observations. The research questions sought to uncover how training is informed by individual perceptions of community issues and procedural justice, and how it impacts agency level use of force and facilitates long-term change. This study was approved by the University of New Haven’s Institutional Review Board, Protocol #2023-023.

---

\(^1\) The Northeast Regional Training Center covers the expanse of Maine, New Hampshire, Vermont, New York, Massachusetts, Rhode Island, Connecticut, New Jersey, Pennsylvania, Delaware, and Maryland. Central/Midwest Region 2 includes Iowa, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, and Missouri.
**Research Questions**

The current study used secondary and primary data to answer various research questions related to the efficacy of NDTC’s de-escalation training at the national and regional levels. In consideration of recent work (Engel et al., 2022a; Goh, 2021; White et al., 2021a) and the ability of NDTC to assess standardized trainings across agencies and geographical areas of the United States, the following research questions sought to provide information about the effectiveness of the training on behavioral responses to citizen escalation, as well as on overall perceptions of the value of evidence-based trainings and procedurally just policing. The purpose of this research was to add scientific evidence for strengthening the internal validity of the effects of NDTC training, as well as enhancing external validity for the use of de-escalation training across agencies, which have not been adequately addressed in the previous literature (Engel et al., 2022a; 2022b; Giacomantonio et al., 2020; White et al., 2021a; 2021b). Through multi-agency training data from several states, the current study provides insight into the effects of training beyond the centralized and highly controlled evaluations available.

**Secondary Data Research Questions**

1. Do individual demographics and attitudes toward procedural justice result in differing training performance?

The first research question addressed findings at the individual level. Previous literature highlights preliminary understandings of how individual demographics inform officer perceptions and use of force in various scenarios (Bolger, 2015; Fryer Jr., 2019; Paoline & Terrill, 2007). The current study adds to this area of knowledge. In evaluating how individual trainees’ characteristics and perceptions of procedural justice inform training performance, the current study used participant data from several agencies and training Regions to add both power
and validity to this area of research (Wilson VanVoorhis & Morgan, 2007). The pre-test assessment and training simulations scores established by the National De-escalation Training Center provided adequate data collection to answer this question fully.

It was hypothesized that, in concurrence with previous literature, individuals with higher education (Paoline & Terrill, 2007; Stickle, 2016), women (Schuck & Rabe-Hemp, 2005), and individuals with more positive opinions of procedural justice during the pre-training assessment (Rosenbaum & McCarty, 2016) would perform better during training exercises, particularly if the de-escalation training is mimicking real-life scenarios. This research question and the associated hypotheses add to the aggregate-level measures of performance already being evaluated by the NDTC, to address how individual characteristics and predispositions towards the principles of the training impact ability to identify, and respond to, specific subject personalities.

2. Does the implementation of training affect departmental-level trends in the use of force?

The second research question sought to address agency-level change associated with training exposure. To supplement the minimal work available on the agency-level effects of de-escalation training (Engel et al., 2020; 2022a; 2022b; Goh, 2021), the current study intended to utilize available data collected by the NDTC to determine how the implementation of training correlates with use of force among several participating departments. While most de-escalation training research is published based on singular agency trainings (Engel et al., 2022a; 2022b; Goh, 2021), the current study planned to use all the collected use of force data of NDTC trained agencies, to be one of the first to evaluate the effects of training across multiple agencies, providing increased statistical conclusion validity for the findings. It was hypothesized that agencies would experience a decrease in reported monthly use of force counts following the implementation period of training, when compared to pre-training rates of use of force. As
reported in the results chapter, use of force data was not available as expected, and thus, this research question could not be answered as part of the current work.

3. Does exposure to NDTC de-escalation training inform changes in individual trainee attitudes about procedural justice and crisis intervention issues?

Little policing literature has attempted to understand how training programs are both informed by and affect individual officer perceptions, but available results have been promising (Giacomantonio et al., 2020; White et al., 2021b). The current research developed, with the National De-escalation Training Center, a new post-training evaluation for trainees. In creating this assessment, which mimics the current pre-training assessment provided by the NDTC, all individuals who were trained from June through December of 2023 received both the pre-training assessment and new post-training course evaluation. This allowed for a comparison of officer attitudes regarding procedural justice and crisis intervention, before and after training, to assess any training-related effects. Such findings are a new addition to available NDTC data and provide greater insight into how training impacts internalized attitudes, and subsequently, on-duty behaviors. It was hypothesized that individuals would report more positive attitudes towards concepts of procedural justice and crisis intervention following training exposure.

4. Does de-escalation training act as a moderator for the effects of individual demographics on procedural justice attitudes and/or for the effects of agency-level demographics on use of force?

In addition to exploring the differences between pre- and post-training attitudes about procedural justice and departmental use of force, the fourth quantitative research question sought to explore whether training acted as a moderator for various predictor variables, specifically individual and agency-level demographics. Utilizing pre-training data collection forms, demographic predictors of individual trainees’ attitudes toward procedural justice were
evaluated. Following training, those same individual demographics were evaluated for their predictive effect on post-training attitudes to determine if training itself plays a moderating role in these relationships. It was also included in the analytic plan to evaluate the relationship between agency characteristic predictors and monthly use of force counts. It was hypothesized that a moderating role exists for both individual and agency-level outcomes, potentially revealed as significant changes to the predictive effects of demographics variables.

**Primary Data Research Question**

5. How do officers perceive the field’s emphasis on de-escalation training and procedural justice?

This final question is central to the original contributions of this study based on NDTC trainees. The current research incorporated qualitative data obtained via semi-structured interviews with trainees from both included regions and from observations of training from the Northeast Regional Training Center housed at the University of New Haven. This research question provides nuanced meaning to training experiences and perceived value of such training to the profession.

Semi-structured interviews designed to elicit “thick description” (Geertz, 1973) and analyzed using deductive, flexible coding approach (Deterding & Waters, 2021; Rubin & Rubin, 2012), allowed for a more comprehensive understanding of how the training provided by the NDTC was perceived and experienced by law enforcement officers. This data generated insight on best practices, lessons learned, and goals for future training and organizational climate. The findings from these interviews can be used by the NDTC to inform training implementation and engagement with participating agencies. In alignment with the inductive process of grounded theories of qualitative analysis, no *a priori* hypotheses of participant responses were established.
Quantitative Methods

Sample

Sampling from singular agencies and/or state law enforcement agencies is one of the primary limitations of the previous de-escalation literature, inhibiting generalization of any promising findings (Engel, 2022a; Goh, 2021; White et al., 2021a; 2021b). Broadly, this study utilized a nested, convenience sample to answer all secondary data questions, based on law enforcement officers trained in Regions 2 and 7 of NDTC from June to December of 2023. The officers trained during this timeframe were decided upon per an agreement between NDTC Regional Directors and participating law enforcement agencies. As a result, the researcher did not have control over selecting officers for participation in training, and no additional exclusion criteria were utilized.

The current study included the full available sample, to raise statistical power and ensure accurate representation of the broader population of law enforcement in the Northeast and Central/Midwest United States (covered by Regions 7 and 2, respectively). In addition to including data on all individual trainees, the second research question planned to utilize agency-level sampling, looking at all independent agencies that had at least one individual trained in these Regions during the study period. In total, the final sample included 598 trainees reporting from 169 independent agencies, including federal, state, local, and other (i.e. hospital, transportation, and college/university) law enforcement agencies, as well as some retired officers. Most participants were male (82.8%), White (82.2%), and served primarily in patrol-based capacities within their agency (67.6%). About 33% held at least a bachelor’s degree. Table 4.1 provides additional demographic data about the sample at the individual level. Agencies were also asked to provide aggregate demographic data, such as number of sworn and civilian
personnel, community make-up, and proportion of female and minority officers. However, of the 169 reported agencies from the study period, only 38 provided this information at the time of data analysis, disproportionately representing smaller agencies (\( \bar{x} = 46.56 \) sworn). As such, these data were not utilized to understand the impact of training in relationship to agency characteristics.

**Table 4.1**

*Sample Demographics (N = 598)*

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Midwest</td>
<td>225</td>
<td>37.6</td>
</tr>
<tr>
<td>Northeast</td>
<td>373</td>
<td>62.4</td>
</tr>
<tr>
<td><strong>Training Attended</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principles &amp; Practices</td>
<td>420</td>
<td>72.0</td>
</tr>
<tr>
<td>Train-the-Trainer</td>
<td>163</td>
<td>28.0</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>453</td>
<td>82.8</td>
</tr>
<tr>
<td>Female</td>
<td>93</td>
<td>17.0</td>
</tr>
<tr>
<td>Other/Prefer not to disclose</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>447</td>
<td>82.2</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>67</td>
<td>12.3</td>
</tr>
<tr>
<td>Asian</td>
<td>9</td>
<td>1.7</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>African/Middle-Eastern</td>
<td>7</td>
<td>1.2</td>
</tr>
<tr>
<td>Native American/Indigenous</td>
<td>12</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Hispanic/Latino - Yes</strong></td>
<td>85</td>
<td>15.8</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS Diploma/GED</td>
<td>74</td>
<td>13.6</td>
</tr>
<tr>
<td>Some college</td>
<td>159</td>
<td>29.1</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>75</td>
<td>13.7</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>180</td>
<td>33.0</td>
</tr>
<tr>
<td>Post-bachelor education</td>
<td>58</td>
<td>10.6</td>
</tr>
<tr>
<td>Served at one agency – Yes</td>
<td>242</td>
<td>44.2</td>
</tr>
<tr>
<td>Primary duties – Patrol</td>
<td>370</td>
<td>67.6</td>
</tr>
</tbody>
</table>

**Instruments**

**Standard Pre-Training Assessment.** The pre-training assessment (Appendix A) as currently offered by the NDTC collects demographic information about trainees. Officers then
complete Likert-scale matrix questions about use of force, procedurally-just community engagement, crisis intervention, and training exposure.

**Practical Evaluations / Post-Training Assessment and Course Evaluation.** The post-training assessment and practical evaluations (Appendix B) collect information on the accuracy with which participants can utilize the information learned in the training during a simulation exercise. The post-training course evaluation (Appendix C) delivered in June-December 2023 was updated to include the procedural justice and crisis intervention questions presented in the pre-training assessment, to enable a comparison of scores across time.

**Standard Agency Data Survey.** The Standard Agency Data Survey (Appendix D) is completed by each agency that enters into a training agreement with the NDTC. The document is completed by agency leadership to provide demographic information at the agency level.

**Monthly Use-of-Force Counts.** Agencies trained by any of the Regional De-escalation Training Centers are asked to provide monthly use-of-force counts for up to five years before and after receiving training. If less than 5 years have passed since being trained, only data until present are requested.

**Interview Schedule, Transcripts and Participant Observation Notes.** A convenience sample of individuals who completed training in the summer and fall of 2023 were interviewed for in-depth analysis of their perspectives regarding de-escalation training and related issues in policing more broadly. The interview schedule (Appendix E) asked questions around four central themes: entering law enforcement, departmental culture, training and other related professional development, and the future of policing and procedural justice. Interviews were recorded, and verbatim transcripts created for analysis when allowed by participants. Observational notes from training sessions were also developed during the ethnographic data collection period. More
information on these instruments and strategies is presented in this chapter's Qualitative Methods section.

**Measures**

**Demographics.** Both agency level and individual trainee demographics were requested by NDTC. Agency-level demographics, as collected on the Standard Agency Data Survey (Appendix D), include attributes such as the make-up of administrative and patrol staff (demographics, counts, etc.), city-level information (i.e., urban/suburban, rural), hiring standards (minimum education requirement, initiatives for hiring women/POC, etc.), and other relevant prior training data. Individual-level demographics requested on the Standard Pre-Training Assessment (Appendix A) include agency, gender, race, ethnicity, education level, years employed (both at the agency and in law enforcement more generally), rank, primary duties and responsibilities, and previous training experience.

**Procedural Justice and Crisis Intervention Attitudes.** Both the Standard Pre-Training Assessment (Appendix A) and adapted Post-Training Course Evaluation (Appendix C) ask matrix Likert-style questions regarding perceptions of procedural justice issues and crisis intervention tactics. For example, officers are asked to indicate the extent to which they agree with statements such as “It is important that officers appear neutral in their application of legal practices and procedures” and “Officers have good reason to be distrustful of citizens.” A complete list of questions can be found in both Appendix A and Appendix C. Utilizing factor analysis and Cronbach’s alpha (see Diagnostics section), these questions were combined into composite scores.

**Training Simulation/Application Scores.** Prior to, and following completion of, the NDTC training, participants engaged in a simulation activity to practice the skills and
competencies learned in accordance with the DISC training. Data collected included the officers’ abilities to: 1) identify whether the subject is in an active or passive state, 2) clearly identify the personality type being displayed, and 3) select the most appropriate response type based on the subject’s DISC Personality Type (see Appendix B). Questions about the DISC personality type were recoded as “yes” if individuals correctly identified the DISC personality displayed, and as “no” if the identified personality type did not match the presented type. The question regarding whether the trainee correctly implemented the most appropriate response type was recoded into a binary dependent variable, based on if they incorrectly (“no”) or correctly (“yes”) identified at least one element of the response type. Lastly, effectiveness of the response was also recoded into a binary variable, based on individuals presenting either an effective (1) or not effective (0) response.

**Design and Procedure**

The current study was designed to take place from May 2023 – May 2024 and utilized a quasi-experimental, one-group research design. It was beyond the scope of this research to compare agency or individual level findings to departments that have not participated in training facilitated by the National De-escalation Training Center. It is the hope of the researcher that such work may be feasible in future projects.

Secondary data were collected by NDTC in accordance with their standard operating procedure and reporting requirements set forth by the Department of Justice. The researcher did not administer, nor participate in the administration of, any training assessments and did not change the procedure for administering the assessments. Such work is done by NDTC trainers who conduct each training and as approved by the organization’s governing Institutional Review Board at Fort Hays State University in Hays, Kansas. Changes to the course evaluation form
were made for this research and completed in collaboration with the NDTC National Research Coordinator.

Law enforcement agencies establish relationships with their respective Regional NDTC Center and send officers to training based on their own organizational needs. All agreements between agencies and determinations of training dates/times/locations and participants are conducted between NDTC and the agencies and were not impacted by the current study. Officers attended either a 2-day Principles and Practices training course or the 5-day Train-the-Trainer model. Upon entering training, officers were asked to complete the Standard Pre-Training Assessment (Appendix A), which included demographic information and their preliminary views on issues related to procedural justice and crisis intervention.

The first part of the training includes a practical exercise (Appendix B) standardized across all Regional Centers. Participants are prompted to de-escalate a mock scenario, and trainers determine the extent to which the officers correctly identify, and adapt their technique to, the personality types of role players. Another standardized scenario is then given and graded at the end of training for pre- and post-training comparisons. At the end of training, officers also complete a course evaluation (Appendix C) providing general feedback on the program. In coordination with the NDTC National Research Coordinator, these course evaluations were adapted for the current study. Participants who were trained in Regions 2 or 7 during the study period (June – Dec 2023) received course evaluations that also included the procedural justice and crisis intervention questions that are present on the pre-training assessment, to determine if training informed attitudinal change among participants.
Analysis

Univariate, bivariate, and multivariate analyses were conducted on quantitative data utilizing statistical software (SPSS) to answer the first four research questions. Table 4.2 outlines the analytical plans for each research question utilizing quantitative data, including bivariate and multivariate analyses.

Table 4.2.

Analytic Plan for Quantitative Data

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>IV(s) Level of Measurement</th>
<th>DV(s) Level of Measurement</th>
<th>Statistical Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1. Do individual demographics and attitudes towards procedural justice predict training performance?</td>
<td>Categorical &amp; continuous</td>
<td>Categorical, Dichotomous</td>
<td>Logistic Regression</td>
</tr>
<tr>
<td>R2. Does the implementation of training affect departmental-level trends in use of force?</td>
<td>Categorical</td>
<td>Continuous</td>
<td>Dependent sample t test</td>
</tr>
<tr>
<td>R3. Does exposure to NDTC de-escalation training inform changes in individual trainee attitudes about procedural justice and crisis intervention issues?</td>
<td>Categorical</td>
<td>Continuous</td>
<td>Dependent sample t test</td>
</tr>
<tr>
<td>R4. Does de-escalation training act as a moderator for the effects of individual demographics on procedural justice attitudes and/or for the effects of agency-level demographics on use of force?</td>
<td>Categorical &amp; Continuous</td>
<td>Continuous</td>
<td>OLS regression</td>
</tr>
</tbody>
</table>

Univariate statistics were produced at the agency and individual trainee levels to compile descriptive information about the nested sample. Using demographic data provided by agencies and individual trainees, descriptive univariates allowed for a more complete understanding of the sample and its potential generalizability. This included information about the racial/ethnic, gender, age, educational, and experiential breakdowns of the trainees as well as agency-level demographics and size, community type (urban, suburban, rural), and educational information. Such information also informs an understanding of the level of variation between trained
agencies, as well as how such differences may affect the validity and reliability of findings of the aforementioned research questions.

Bivariate analyses, particularly dependent sample $t$-tests, were identified as the proper analyses for answering the second and third research questions. RQ2 sought to understand the effect of training on departmental use of force. Available agency-reported monthly counts prior to the training implementation period were intended to be compared to the post-training monthly reports to determine if the average use of force within participating departments is affected by the NDTC program. Several non-randomized evaluations of police training have utilized the paired samples $t$-test as part of analyses for comparing pre- and post-training attitudes and knowledge retention (Navarrete et al., 2022; Quinet et al., 2003; Wise et al., 2022).

Similarly, the third research question (RQ3) was answered using dependent sample $t$-tests to compare pre- and post-training attitudes toward procedural justice and crisis intervention, to determine effects of training on these individual officer perceptions. Given the larger number of procedural justice Likert-scale questions included, exploratory factor analysis was conducted to confirm factor loading (Davidson & Canivez, 2012; Kremelberg, 2010; Mandracchia & Morgan, 2011; Mvududu & Sink, 2013). Items that load on to the same factors were combined into composite measures. Cronbach’s alpha was also evaluated on these measures to identify internal consistency across items (Adams & Mastracci, 2019; Tavakol & Dennick, 2011). Additional information regarding the factor analysis and composite measures is discussed in Chapter 5. Mean scores on the new composite measures were then compared between the Pre- and Post-Training Assessments to provide new insight into NTDC training effects. These new consolidated procedural justice and crisis intervention measures acted as independent variables for research question #1 and dependent variables when determining if training impacts
perceptions of procedural justice (research question #3). They were also utilized to determine if
the effects of predictive variables are influenced by a potentially moderating effect of training
(research question #4). While causation cannot be concluded without a true experimental design,
these analyses still provide valuable preliminary findings for the current program.

Multivariate analyses, particularly logistic regression, were utilized to answer RQ1,
which seeks to understand the predictive effects of demographics and perceptions of procedural
justice (as described in the Measures section of this chapter) on post-training simulation
performance. Logistic regression provides the predicted probability of an event taking place; in
this case, whether the trainee accurately identified the subject’s personality type and effectively
implemented an intervention, by having the log-odds for the event be a linear combination of the
independent variables (Hosmer & Lemeshow, 1989; IBM Analytics, 2016). Logistic regression is
most appropriate for this research question given the anticipated sample size, type of independent
and dependent variables available, and the intention to avoid violating the core assumptions of
more elaborate analyses (Pampel, 2021; Menard, 2002). Whether or not the trainee accurately
identified the appropriate personality type and effectively implemented the intervention served as
the outcome variables, coded as binary dummy variables (Yes/No) in several logistic regression
models. The use of demographic and procedural justice attitudes variables to predict engagement
with, and retention of, de-escalation training also builds upon previously published works
(Paoline & Terrill, 2007; Stickle, 2016; White et al., 2021).

In addition, ordinary least squares (OLS) regression and comparison of coefficients was
used to answer research question #4, which sought to determine whether training acts as a
moderator for the relationship between demographic predictors and attitudes towards procedural
justice/crisis intervention and overall use of force counts by comparing pre- and post- individual
and agency-level data. Initial models explored the pre-training predictive effects of individual trainee demographics on procedural justice and crisis intervention attitudes. The same models were then estimated again using the participants’ post-training data. Differences between these pre- and post-training effects of predictor variables were compared to determine if the de-escalation training acts as a moderator (Clogg et al., 1995; Paternoster et al., 1998). In accordance with Paternoster and colleagues’ (1998) analysis, the following equation was utilized to compare the differences between pre- and post-training regression coefficients and determine if they were 1) statistically different and 2) moderated by training effects. In this equation, Z represents the difference between the two coefficients ($b_1$ and $b_2$) divided by the square root of the combined squared standard errors of these coefficients.

$$Z = \frac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}}$$

Note: taken from Paternoster et al. (1998)

This equation prevents bias in the form of false positives, particularly when the two groups have different sample sizes (Paternoster et al., 1998), which may be possible when utilizing listwise deletion for missing values. Similar models were also planned to evaluate moderating effects at the agency level as well, determining if agency-level use of force experiences the same effects. Such analyses not only allow for a deeper understanding of how regional trainees compare to the national dataset but also provide a stronger analysis of any true moderating effects at the regional level.

**Diagnostics**

To answer several research questions related to officers’ attitudes towards procedural justice concepts, the current study consolidated questions included in the pre- and post-
assessments into composite measures. To ensure that such efforts were valid and that the pre-designed questions all adequately addressed procedural justice concepts, exploratory factor analysis was utilized (Kremelberg, 2010). In this form of factor analysis, no pre-determined number of factors are set, allowing for exploration of which variables best load onto various factors. A series of factor analyses were generated, using varimax rotation to facilitate associating specific variables with a singular factor onto which they best load (Kremelberg, 2010). The initial consideration within this analysis is whether all included procedural justice questions load onto a singular factor with an eigenvalue greater than 1, indicating that the questions initially intended to represent procedural justice do in fact address a singular concept. Since more than one factor resulted in an eigenvalue greater than 1, these factors were utilized to represent different, composite dependent variables for the purposes of answering the research questions (Kremelberg, 2010). Additionally, Cronbach’s alpha was utilized as a confirmatory check on the reliability of these new variables.

Due to the binary nature of the dependent variable in logistic regression, the models utilized for research question #1 did not have as many inherent statistical assumptions as linear regression, namely regarding normality and homoscedasticity of the residuals (Pampel, 2021). However, there were existing concerns related to sample size and other diagnostic measures that were addressed to ensure that any reported statistical findings were valid and did not violate the assumptions of the analysis. In addition, model log-likelihoods, pseudo r-squares, and statistical significance of the independent variables were reported, and tolerance statistics and variance inflation factors were evaluated to test for multicollinearity (Menard, 2002).

The OLS regressions utilized in RQ4 also have assumptions that must not be violated (Menard, 2002). While the use of secondary data prevents control over any measurement error
related to the items used, adjusted r-squares produced by the models were reviewed to assess
specification error. In addition, regression assumptions related to the error terms, such as
homoscedasticity, autocorrelation, and normality, were carefully reviewed to ensure such
assumptions were not violated. Tolerance statistics and variance inflation factors were also
evaluated to test for multicollinearity (Menard, 2002). Several stepwise models were estimated
for both the logistic and OLS regressions to fully assess the relevant independent and dependent
variables. Concerns regarding zero cells, residuals, and outliers were also considered and
addressed as needed.

**Qualitative Methods**

**Recruitment and Sampling**

To answer the final, qualitative research question, a subset of the larger training sample
(\(n=16\)) participated in one-on-one semi-structured interviews regarding their perceptions of
training and procedural justice initiatives more broadly. To gain access to this subset of trainees,
a final question was added to the Region 2 and 7 course evaluation forms asking trainees to leave
their email address if they were willing to be contacted to discuss the training further. In addition,
trainers and the Region 7 Director were also utilized as a referral source (Berg, 2001; Vallance,
2001) and were asked to encourage all participants to consider being interviewed and provide
their email address when prompted. If contact information was provided, the National Research
Coordinator, who has sole access to course evaluations, forwarded these email addresses to the
researcher who then kept this information in a password protected file. Participants were then
contacted by the researcher via email informing them of the goals of the interview process,
including a copy of the consent form, and asking to set up an interview time.
Interviews took place via Zoom and/or phone call, depending on participant preference, and were audio recorded for note-taking purposes, if consented to by the participant. The interviews were intended to solicit in-depth, complex, and rich responses from participants’ perspectives (Rubin & Rubin, 2012; Timmermans & Tavory, 2022). In the interview, participants were encouraged to construct their own meanings of public service, procedural justice, and the issues facing the modern American policing. In accordance with proper qualitative methodology (Rubin & Rubin, 2012), the researcher also engaged in rigorous notetaking during interviews and completed post-interview memos to explore positionality and emotional responses to the process (Berger, 2015; Lofland & Lofland, 1985).

For recorded interviews, verbatim transcripts were also created for analysis. While most participants consented to being recorded (n=15), they often asked many questions related to the purposes of the recording, who would have access, and how footage or quotes would be used in any front-facing capacities. One individual, even despite consenting to the recording, acknowledged outright that he would be less forthcoming if he knew he was being recorded. This likely represents the nature of the policing profession in which officers are often required to speak in an official capacity related to the facts of cases and ongoing investigations. While only one participant declined to be recorded, this may have still impacted the narratives that each participant chose to tell, and how they chose to tell it, regarding the state of policing. The analysis uncovered the meaning behind these chosen narratives and provided validity to these methods through data richness, rigor, and exploration into the truthfulness in how this sample described the attitudes of police more broadly (Becker, 1996; Corbin & Strauss, 2008; Fontana & Frey, 1994). The use of training observation to triangulate the uncovered meanings in the
qualitative data also served as a validity check on the officers’ responses and the meaning of these narratives.

Officers are also trained to speak and write in a perfunctory manner, sticking solely to reporting on factual evidence and step-by-step recounting of behavioral decisions during citizen interactions. This seemed to impact the interview process, in which responses to questions were often brief, requiring the researcher to often ask follow-up probing questions (Small & Calarco, 2022). Officers largely did not engage in deep emotional processing of events or experiences shared and were very matter-of-fact in their responses. As a result, interviews were shorter than is often expected in a semi-structured, in-depth interview, averaging about an hour in length per participants (min = 41 minutes; max = 81 minutes). Further consideration of how this may have impacted interpretation of, and responses to, interview questions is included in Chapter 6.

In all, 141 individuals provided their contact information and were emailed by the researcher asking them to consent and schedule an interview time. Participants were emailed a total of three times before being removed from the listserv, resulting in an 11% response rate. No inclusion or exclusion criteria were established for this sample beyond the requirement that they had completed a training offered by the NDTC. Interview participants were majority male (81.25%) and served in a variety of roles such as patrol officer, training lieutenant, and sergeant. They had served, on average, for 17.2 years, ranging from 3 – 30 years on the force. Table 4.3 provides the breakdown of the sample’s demographic makeup. Table 4.4 provides the aliases used throughout the results section to allow continuity between themes and participants.

Table 4.3

Interview Sample Demographics (N = 16)

<table>
<thead>
<tr>
<th>Agency Type</th>
<th>n (%)</th>
<th>Min</th>
<th>Max</th>
<th>̅x</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Local 11 (68.75%)
State/County 3 (18.75%)
Federal 1 (6.25%)
Civilian 1 (6.25%)
Region
Northeast 12 (75%)
Central/Midwest 4 (25%)
Position
Patrol Officer 6 (37.50%)
Sergeant 3 (18.75%)
Lieutenant 3 (18.75%)
Retired 2 (12.50%)
Other 2 (12.50%)
Gender
Male 13 (81.25%)
Female 3 (18.75%)

Table 4.4
Participant Aliases and Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Title</th>
<th>Years on Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark</td>
<td>M</td>
<td>Rt. Special Agent</td>
<td>24</td>
</tr>
<tr>
<td>John</td>
<td>M</td>
<td>Patrol Officer</td>
<td>5.5</td>
</tr>
<tr>
<td>Luke</td>
<td>M</td>
<td>Patrol Officer</td>
<td>19</td>
</tr>
<tr>
<td>Derek</td>
<td>M</td>
<td>Lieutenant</td>
<td>23</td>
</tr>
<tr>
<td>Jared</td>
<td>M</td>
<td>Patrol Officer</td>
<td>4</td>
</tr>
<tr>
<td>Julia</td>
<td>F</td>
<td>Training Sgt.</td>
<td>24</td>
</tr>
<tr>
<td>Peter</td>
<td>M</td>
<td>Ret. Detective</td>
<td>25</td>
</tr>
<tr>
<td>Jessica</td>
<td>F</td>
<td>Civilian</td>
<td>N/A</td>
</tr>
<tr>
<td>James</td>
<td>M</td>
<td>Sergeant</td>
<td>28</td>
</tr>
<tr>
<td>Leo</td>
<td>M</td>
<td>Training Lieutenant</td>
<td>15</td>
</tr>
<tr>
<td>Chris</td>
<td>M</td>
<td>Criminal Investigator</td>
<td>30</td>
</tr>
<tr>
<td>Jose</td>
<td>M</td>
<td>Sergeant</td>
<td>22</td>
</tr>
<tr>
<td>Nick</td>
<td>M</td>
<td>Training Lieutenant</td>
<td>26</td>
</tr>
<tr>
<td>George</td>
<td>M</td>
<td>Patrol Officer</td>
<td>3</td>
</tr>
<tr>
<td>William</td>
<td>M</td>
<td>Correctional Officer</td>
<td>3</td>
</tr>
<tr>
<td>Amanda</td>
<td>F</td>
<td>Patrol Officer</td>
<td>6</td>
</tr>
</tbody>
</table>

Data Collection

Qualitative data collection and analysis of trainee’s experiences with the program and the profession of policing more broadly acted as a form of triangulation (Coffey & Atkinson, 1996;
Noaks & Wincup, 2004) with the quantitative data and served as an independent means of gathering insight into participant’s perceptions, identities, and belonging in the policing culture. This allows for depth and richness of responses not gained from solely close-ended survey response measures. Triangulation of multiple forms of data collection also improves the validity of the findings by reaffirming the results through interview transcripts, observation notes, and survey responses and training simulation scores (Berg, 2009; Corbin & Strauss, 2008; Noaks & Wincup, 2004). Through a semi-structured interview guide, interview memos and transcripts, and observation of training, the current analysis provides a more comprehensive and holistic picture of the ways in which law enforcement interact, retain and utilize training knowledge, and navigate the professional culture.

One-on-one interviews utilizing a semi-structured interview guide were chosen as the primary form of qualitative data collection to allow for nuanced, in-depth exploration of participant’s responses to questions about their departmental culture, experiences in policing, and perceptions of the NDTC training (Rubin & Rubin, 2012). This form of interview is intended to act as a “guided conversation” (Fontana & Frey 1994; Rubin & Rubin 2012) in which questions are developed with the intent of invoking detailed responses but also allows for exploration of organic points of discussion. As a result, not all questions within the interview guide were asked in every interview or asked in the same order to allow participants the opportunity to expand on the narratives most important to them (Strauss & Corbin, 1998). Broadly, the researcher sought to ask questions related to their training experience, history within law enforcement, and departmental culture, and to explore their perceptions of the sociopolitical calls for change in their profession. The full interview guide can be found in Appendix E.
Due to the expansive geographical region covered in this study, all interviews were conducted via phone or Zoom conferencing software. Traditionally, this format is viewed as a secondary, or lesser alternative to face-to-face interviewing (Fontana & Frey, 1994; Harvey, 1988). However, more recent methodological considerations suggest that phone interviews may still prove useful and even as a preferred method of interviewing when discussing sensitive topics by providing a sense of anonymity (Fenig et al., 1993; Greenfield et al., 2000; Sturges & Hanrahan, 2004), or when speaking with people “in a position of power or raised social structure” (Holt, 2010; Stephens, 2007).

Both elements are particularly relevant with law enforcement who were asked to explore their feelings on the greatest criticisms of their job and serve in a capacity that innately brings a higher social status and position of power than the researcher, who is not a law enforcement official. As such, providing the opportunity for a phone or camera-off Zoom session may have served participants in ways that a face-to-face interview may not. Participants who opted to utilize Zoom as the form of interview method were not required or asked to turn their camera on if they did not wish to, allowing for this sense of comfort often bought on by perceived anonymity. Utilizing these formats also aided the researcher in expanding the geographical landscape of participant eligibility to provide trainees from several US states the opportunity to share their experiences and have their voices heard (Miller, 1995; Sturges & Hanrahan, 2004; Tausig & Freeman, 1988).

Interviews were conducted after participants had been contacted via email and had signed consent forms informing them of their rights as research subjects. Interviews then took place within an agreed upon time and interview format. Each interview began with a description of the purpose of the research, including how their responses would be used and shared, confirmation
of consent to being recorded, and the opportunity to ask any follow-up questions regarding the consent form and/or their rights. Participants were then asked to begin by clarifying how long they had been in law enforcement and how their experience had changed over time. Depending on the nature of the responses and level of detail provided, the researcher would then transition into navigating the rest of the interview guide, probing, and exploring additional avenues of data as applicable (Small & Calarco, 2022).

While interviewing, the researcher also engaged in active notetaking, collecting information not available within the verbatim transcripts, such as participants’ emotions, areas of emphasis, and key notes/thoughts that were inspired by responses. If the interview was being recorded, priority was placed on these elements whereas within the interview that was not recorded, as much detail and content as could be captured was written down by the researcher. In addition, immediately following each interview, the researcher completed a post-interview memo, noting key themes of interest, analytic thoughts and connections, emotional responses to participants’ narratives, and exploration of how positionality informed interpretation of responses (Lofland et al., 2006; Scheirs & Nuytens, 2013). These memos helped supplement the analytic process and provided the opportunity for improved recall of interviews and identification of how the researcher’s emotional responses may have informed the interview’s nature.

Lastly, the researcher also conducted about 40 hours of training observations over 5 months, as was feasible. These observations occurred throughout the state of Connecticut, where the majority of Region 7 trainings took place. Observations were completed across 6 trainings and 5 different locations, including both 2-day and 5-day training formats. Participants included trainees from over 20 different departments. Detailed notes about training content and participant behaviors, emotions, silences, and responses were collected actively during these trainings - with
the knowledge of all present trainees - to allow for exploration of taken-for-granted interactions, and unspoken meaning of the social setting (Emerson et al., 1995; Lofland et al. 2006). This level of participant observation also allows for exploration of how trainee interactions informed their perceptions and utilization of training, the interactional nature of police culture, and acted as a comparative analysis from the one-on-one personas of interviewees. The combination of these observations with interviews also helped uncover unexpected data and explore discrepancies between individual and interactional identities (Becker & Geer, 2003).

The first 16 hours of training observation were completed as a full participant, engaging in all elements of training as needed for certification. This included training simulations, role-play exercises, a written exam, and several hours of lecture attendance. Observation notes from that period as a full participant focus on the researcher’s engagement in the training, perceptions of the exercises, ideas about training content and presentation, and shared experiences with other trainees. When in lecture, field notes focused on training content, how trainers presented the materials, and the researcher’s own reactions to and thoughts about the training and were taken in the moment to allow for a more complete recall of experiences later. Emotions, thoughts, and interactions that happened during role-plays and simulations were written down immediately following each exercise.

The remaining hours of observation were completed as a participant observer (Emerson, 2001), in which the researcher was present in an observational capacity known to the trainees but also engaged in classroom dialogue, aided in role-play exercises, and had both formal and informal discussion with other trainees. During these observations, note taking focused on interactions, behaviors, silences, and emotional responses from trainees. Notes were taken in real time and focused on trainee interactions with the materials, classroom questions and discussions,
researcher interactions with trainees or trainers, as well as informal interactions and dialogue that occurred between trainees during lecture, exercises, or even within breaks/lunch periods. This allowed for a comprehensive record of what occurred throughout training and how officers interact or posture within shared spaces, particularly given they were presenting themselves to other departments and officers of varying leadership positions. In all, about 12 pages of observation notes were taken throughout the observation hours to supplement the narratives received during participant interviews and provide context as to how officers engage with the training content in interactional contexts.

**Researcher Role and Relationships**

Observational notes and interview memos also allowed for an exploration and analysis of researcher positionality (Holmes, 2020; Lofland & Lofland, 1985). Positionality refers to one’s own world view, experiences, and sociocultural status that may shape one’s assessment and interpretation of qualitative data (Holmes, 2020; Rowe, 2014), allowing acknowledgement of how one’s own identity influences the research, a process known as reflexivity (Cohen et al., 2011; Holmes, 2020). My position as a white, female scholar who has never had direct interactions with the criminal legal system may strongly impact the ways in which I interpret the words and intentions of the officers being interviewed. I am also closely aligned with law enforcement in my personal life as well, including my husband and many friends. As such, I may have engaged with participating officers with a level of trust or naiveté that justice-involved persons may not inherently possess. However, as an academic in this field and young American, I am also a strong proponent of criminal legal reform, particularly within law enforcement, which may lead officers to perceive me as hypercritical of the climate of officers’ departments and as in favor of de-escalation training. In utilizing memos as an opportunity to explore the
emotions and thoughts experienced during interviews and training observations, I was able to adequately reflect on my own positionality.

Additionally, my positionality as an outsider (Hill Collins, 1986; Brown, 2018) to the organization and culture of policing created a unique barrier for recruitment and rapport building within interview transactions. Among law enforcement officers, there is often a strong sense of fraternity or an internal “boys club” that not only reinforces masculine values but also informs the self-isolation from, and mistrust of, the public (Du Plessis et al., 2020; Sanders et al., 2022; Rabe-Hemp, 2009). My status as an outsider to the profession may have created spaces in which potential participants did not feel that their best interests, or the best interests of the profession, were being met in serving the research project. My outsider status may also explain the brevity of interview responses received across participants, with most individuals requiring significant probing to elicit details.

To address this outsider status and gain insight into the experiences of participants, I often made evident during interviews and observations that I am closely aligned with many law enforcement officers in my personal life and that I understand the duties, responsibilities, and burdens of their role. Of note, six out of the fifteen individuals who completed an interview were present during the trainings observed by the researcher, in which I was introduced by trainers as “part of the team” and “legit”, suggesting that being vouched for by the training authority and building interpersonal rapport prior to completing the course evaluation may have made some of these individuals more inclined to, or comfortable with, participating.

My overall outsider status, once past the recruitment phase, aided with rapport building as I deferred to participants as the professional experts and provided them with voice to explain their lived experiences and perspectives of the field. My identity as an outsider, particularly to a
very close-knit culture such as policing, shaped not only my experiences with qualitative data collection and analysis but also inherently informed the assumptions made by the research questions, analysis, and procedural decisions throughout. As an individual without insider knowledge of the emotion work related to being a law enforcement officer, I had initially included in my interview schedule questions that either do not serve to advance our scholastic knowledge of policing or that did not resonate with officers and therefore did not result in rich descriptions (Geertz, 1973). For example, the first several participants were asked about how their department has addressed or acknowledged social calls for change in policing. Most participants, while able to discuss their department’s attitudes towards the sociopolitical climate, often did not elaborate or have specific examples of how their agency was attempting to address these community-level concerns. As such, preliminary analyses of interviews conducted early in the process allowed for adaptation of the interview schedule to address and prioritize the key concerns and interests of law enforcement trainees as it pertains to de-escalation training and criminal legal reform more adequately (Emerson, 2001).

Observation hours were often completed as a participant observer (Emerson 2001), primarily observing silently and taking notes, but also participating in training dialogue and informal conversations with trainees throughout. As previously elaborated, the researcher also spent the first 16 hours of observation as a full participant (Emerson, 2001), engaging in the 2-day training program as a full trainee, participating in all lectures and role-plays, and becoming certified in NDTC’s de-escalation training program. Spending time with participants during field exercises and in formal and informal interactions (lecture, breaks, lunch, etc.), the researcher was able to engage in unstructured conversation with several officers at once, gaining insight into the ways in which they engage as a group and incorporate an outsider into their dialogue. Formal
dialogue took place during lectures, role-plays, and simulation exercises, allowing for insight into the officers’ workplace personas and how they engaged during a training collaboration with other departments. Conversations during informal break times ranged from “war stories,” movies they had recently watched, politics/news, and recent sporting events.

Through engaging with trainees and trainers in both capacities, I built a unique rapport and became viewed as a training insider, while still being considered removed from official NDTC staff. I was also able to gain this level of insider status or credibility with other interviewees I had not met during training once they had learned that I myself engaged in training as a full participant. My ability to accurately discuss what occurs in training and the typical responses of other officers also confirmed to trainees that I had made the effort to learn the material well and contributed to rapport building and my validity as a “trustworthy” academic. Through these dual outsider and insider identities, I was able to both build credibility and still defer to participants as the professional entities. When interviewing and introducing myself in observations, I emphasized this dynamic, emphasizing that I felt it was my duty as a researcher to include officer voices in the data before coming to conclusions about how training for law enforcement can be improved.

**Data Analysis**

Interview recordings were transcribed utilizing Zoom recordings and cleaned through Otter AI, a secure transcription software. Final copies of all available transcripts were uploaded into the analytic software NVivo for analysis. Transcripts were analyzed using a deductive, flexible coding approach (Deterding & Waters, 2021; Rubin & Rubin, 2012). Flexible coding (Deterding & Waters, 2021) is a newly adapted outgrowth of grounded theory that emphasizes ways to better analyze and organize data within QDA (qualitative data analysis) technologies.
Such efforts include first building index codes, or large chunks of data that tell a larger story or represent the major themes, and then homing in on analytic or theoretical codes. Training observation notes and post-interview memos were also analyzed for perceived meanings and additional nuances not available in the transcription. This allowed for an open coding process in which initial themes were explored in the shared meanings and experiences as reported by participants. After establishing initial patterns in the data, the researcher engaged in focused coding (Charmaz, 2012) to pull deeper meaning from those themes that seem particularly salient among respondents. Observational notes and interview memos were also referenced during this process to ensure consideration of these cognitions, emotions, and visceral experiences were included in analysis, despite not being explicit in the interview transcript.

Interacting with participants in both training and interview settings, and having access to their quantitative training data, allowed for insight into their taken-for-granted behaviors (Emerson 2001) as well as their front–stage and back-stage behaviors (Goffman, 1959). Particularly, this provided understanding of the ways in which officers posture and “do gender” (Garcia, 2003; Schrock & Schwalbe, 2009; West & Zimmerman, 1987) when with their colleagues and the extent to which their front and backstage selves differed when discussing the sociopolitical climate of policing. According to Goffman’s dramaturgical perspective (1959), all self-presentation and social interaction can be equated to a theatrical production. Front stage behaviors (Goffman, 1959) occur when others are watching or when a specific role is needed within a time and space-specific context. Backstage actions (Goffman, 1959), or the behaviors that take place when no one is looking, are more likely to reflect one’s “true” self. In collecting data through several forms (surveys, interviews, and observation), the researcher gained access to both front and backstage behaviors. In group contexts, participants might have been expected
to posture in ways that reinforce the “warrior” mentality or other prescribed cultural norms (Simon, 2021), whereas in interviews, they may have felt obligated to perform for the academic nature of the work or experienced a social desirability bias (Grimm, 2010).

Given that each of these spaces provides insight into different social interactions and portrayals of self, triangulation of the data allowed for a more complete picture of participants and the dynamics of the policing culture. This dichotomy of behavioral spaces helped reveal their buy-in to training, willingness to utilize or discuss it with peers, and particularly, the extent to which officers engage in conversations related to issues in policing and public opinion in both these public and semi-private settings. The collaborative nature of the police culture and ground-level discretion often afforded patrol officers in use-of-force instances creates the need for a more nuanced and in-depth understanding of how officers perceive the values and skills associated with NDTC’s training in both group and individual settings.
CHAPTER 5: QUANTITATIVE RESULTS

The current chapter presents the findings of the quantitative research questions presented previously. Utilizing training data, this chapter includes an overview of the data cleaning process, diagnostic analyses, and answers to the quantitative research questions outlined in Chapter 4. The analysis and interpretation of each research question is evaluated here, with training and larger practical implications explored in the final Discussion Chapter.

Variable Cleaning

Raw training data was provided by the National De-escalation Training Center in individual .csv files downloaded from Qualtrics Survey software. This included participant pre-training surveys, pre-training simulation scores, post-training simulation scores, and course evaluation data from all participants across the two Regions included in this study (Northeast and Central/Midwest). Agencies who sent officers for training were also asked to complete the agency data form and provide use-of-force data.

At the individual trainee level, excel files were scanned for duplicates and missing data, and then were merged to ensure that each case had complete training information from all four surveys in one file. Files across regions subsequently were combined to create the final master dataset. For this research, a copy of this file was made to only include cases from June – December 2023, to ensure that all data of interest was available. Agency-level data was minimal, with only 37 agencies reporting demographic data since June 2023. This file was cleaned for duplicates and cross-referenced with reported organizations of individuals to help NDTC determine which agencies had not yet reported any demographic data.

Lastly, use of force data was only reported by four small police agencies during the study period. This data does not reflect the statistical power needed for further analysis in the current
project. It is the goal of NDTC leadership to pursue agency participation in this aspect of the program more fully in the coming months.

**Descriptives of Individuals and Agencies**

The current sample represents 598 individuals trained by NDTC from May 30, 2023, through December 31, 2023. According to their own self-reports, these officers came from 169 different agencies across the two NDTC Regions. Most trainees during this period came from the Northeast Region 7 (62.4%). Trainees who reported their demographic data were predominantly male (82.8%), White (82.2%), non-Hispanic (84.2%), and had at least some college education (86.4%). A visual breakdown of sample demographics can be found in the Sample section of Chapter 4.

Despite officers within the study period reporting employment at 169 different agencies, only 37 agencies provided any aggregate demographic data via the Agency Data Survey requested for completion when agencies send officers for training. As presented in Table 5.1, of the agencies that did report aggregate demographic data, the majority represented local police departments (65.8%) serving primarily suburban communities (31.6%), and had, on average, about 46 sworn officers, although this number is positively skewed by a few large agencies (sd = 44.53). Of these agencies, only about half reported having an educational requirement for sworn officers (56.2%), and for most of these agencies, the minimum requirement was the equivalent of a GED/High School Diploma (44.7%). The mean age of officers, as estimated by staff, was 33.8 years old. Only about half of reporting agencies had offered another formal de-escalation in-service training to their officers since 2016. On average, these agencies were 12.89% female and 14.46% minority/non-white, and 23.8% of each agency were veterans or members of the National Guard.
While this sample is too small to have any generalizable power, these proportions can be compared to the most recent national analyses of local police departments from the Bureau of Justice Statistics (Goodison, 2022). The current study’s reporting sample was not nationally representative, differing in that the agencies employed, on average, a slightly smaller proportion of women (12.89% sample vs 13.5% national) and a smaller proportion of minority/non-White officers (14.46% sample vs 29.9% national) than the average local police department in the United States. In addition, the current study’s agencies employed, on average, more officers than the national average of local departments (47 officers per agency vs 10 per agency national average) (Goodison, 2022). These differences are likely due to the nature of the small sample and the abnormal distribution of most of these results. Given the small and less than representative nature of the aggregate sample, analyses were not conducted at the agency-level, nor was aggregate data considered when creating conclusions and policy recommendations related to the findings.

Table 5.1

Agency Demographic Data (N = 37)

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>(\bar{x}) (%)</th>
<th>Min</th>
<th>Max</th>
<th>sd</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agency Type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>25</td>
<td>(67.56%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County Sheriff’s</td>
<td>8</td>
<td>(21.62%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>(10.82%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Community Type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primarily rural</td>
<td>8</td>
<td>(21.62%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primarily suburban</td>
<td>12</td>
<td>(32.43%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primarily urban</td>
<td>6</td>
<td>(16.23%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mix of urban &amp; rural</td>
<td>9</td>
<td>(24.32%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized jurisdiction</td>
<td>2</td>
<td>(5.40%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Require At Least GED/Diploma</td>
<td>17</td>
<td>(45.95%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Sworn Officers</td>
<td>46.56</td>
<td>2</td>
<td>208</td>
<td>44.351</td>
<td></td>
</tr>
<tr>
<td>Ratio of Female Officers</td>
<td>.129</td>
<td>.000</td>
<td>.500</td>
<td>.098</td>
<td></td>
</tr>
<tr>
<td>Ratio of Minority/Non-white Officers</td>
<td>.145</td>
<td>.000</td>
<td>.636</td>
<td>.146</td>
<td></td>
</tr>
</tbody>
</table>
Course Evaluation Feedback

When training ended, all officers were prompted to complete a comprehensive course evaluation, answering a variety of questions about their experiences. Specifically, trainees were asked questions about training objectives, course materials, content and delivery, instructor knowledge and skill, and personal skill/knowledge development. Participants were asked to indicate on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree) the extent to which they agreed with sixteen different statements about their overall training experience. As shown in Tables 5.2 through 5.5, all items averaged over a 4.0 out of 5, indicating positive attitudes towards NDTC’s program.

Officers were asked several questions related to course content and objectives. Generally, officers somewhat or strongly agreed with these statements about clearly defined course outcomes and content appropriate to their job level and experience. These findings support NDTC’s development of training geared towards patrol officers and other law enforcement who work closely with citizens and reinforces that the training utilizes appropriate content for the cognitive and behavioral capabilities of participants.

Table 5.2

Evaluation of Course Content and Skill Building

<table>
<thead>
<tr>
<th>Items</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training objectives and outcomes for the course are explicitly stated</td>
<td>522</td>
<td>1</td>
<td>5</td>
<td>4.34</td>
<td>.731</td>
</tr>
<tr>
<td>and understandable. Course content is appropriate for someone within</td>
<td>528</td>
<td>1</td>
<td>5</td>
<td>4.44</td>
<td>.689</td>
</tr>
<tr>
<td>my professional field. Course content is appropriate for someone with</td>
<td>528</td>
<td>1</td>
<td>5</td>
<td>4.37</td>
<td>.763</td>
</tr>
<tr>
<td>my level of experience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In addition, officers were also asked to indicate the extent to which they felt prepared to utilize the skills learned during training and how the materials would help them do so (see Table 5.3). Again, officers had overwhelmingly positive opinions of the practical application of the training program, indicating they would feel prepared to use the skills and knowledge obtained from NDTC.

**Table 5.3**

*Evaluation of Practical Skill Application*

<table>
<thead>
<tr>
<th>Items</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The course provided the knowledge and skills I need to accomplish the</td>
<td>526</td>
<td>1</td>
<td>5</td>
<td>4.36</td>
<td>.694</td>
</tr>
<tr>
<td>job for which I am receiving training.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials are presented in realistic job scenarios that I can easily</td>
<td>528</td>
<td>1</td>
<td>5</td>
<td>4.34</td>
<td>.701</td>
</tr>
<tr>
<td>transfer to my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Based on the training, I am fully capable of implementing the skills</td>
<td>526</td>
<td>1</td>
<td>5</td>
<td>4.31</td>
<td>.656</td>
</tr>
<tr>
<td>I learned.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Officers were asked a series of questions about their course instructors, particularly about how they delivered course material and engaged the class in learning and skill development. As presented in Table 5.4, trainee attitudes were strongest in this content area, providing very positive feedback about instructor skills, preparedness, and ability to convey course content. The intention of NDTC to only utilize trainers who are current or retired law enforcement is reinforced by this feedback and seems to serve the interests of officers who feel more comfortable receiving information from persons with shared experience.

**Table 5.4**

*Evaluation of Instructors*

<table>
<thead>
<tr>
<th>Items</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructors were prepared.</td>
<td>514</td>
<td>1</td>
<td>5</td>
<td>4.66</td>
<td>.629</td>
</tr>
<tr>
<td>Instructors used instructional time effectively.</td>
<td>526</td>
<td>1</td>
<td>5</td>
<td>4.65</td>
<td>.592</td>
</tr>
</tbody>
</table>
Instructors demonstrated thorough knowledge of course content.  
Instructors were able to answer questions clearly and understandably.  
Instructors conducted the course in a skilled and competent manner.  
Instructors encouraged student participation.  
Instructors fostered a positive and stimulating learning environment.  
Instructors covered all of the course learning objectives.  
Overall, the performance of the instructors met my needs and expectations.

Lastly, officers were also asked to gauge their overall training experience, particularly the extent to which the training met their needs and expectations and how effective the program was in meeting its own goals and objectives. Again, officers were largely supportive of NDTC’s training program, reflecting promising outcomes and broader buy-in and support for continued exposure to NDTC’s de-escalation strategy (see Table 5.5).

**Table 5.5**

*Evaluation of Overall Course Experience*

<table>
<thead>
<tr>
<th>Items</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, the course met my needs and expectations.</td>
<td>528</td>
<td>1</td>
<td>5</td>
<td>4.35</td>
<td>.786</td>
</tr>
<tr>
<td>Overall, the course is effective in meeting the goals and objectives of the course.</td>
<td>122</td>
<td>2</td>
<td>5</td>
<td>4.39</td>
<td>.623</td>
</tr>
</tbody>
</table>

**Factor Analysis and Composite Measure Creation**

As discussed in the methods chapter (see Chapter 4), exploratory factor analysis, utilizing varimax rotation, was utilized to consolidate procedural justice attitude questions into composite measures. This was done to create singular dependent variables for linear regression models and to avoid multicollinearity by including multiple individual procedural justice variables into
regression models as independent variables. All questions included in the factor analysis were originally scored on a 1-5 Likert scale (1 = strongly disagree; 5 = strongly agree). These questions asked about several elements related to procedural justice, such as providing citizens with voice, answering their questions fully, having trust, and utilizing force. All procedural justice attitude questions were asked during the pre-training assessment and post-training course evaluation in the same order and on the same scale. As a result, the following analyses represent the factor analysis as completed on the pre-test questions and confirmed via Cronbach’s alpha.

In order to ensure that all variables loaded onto only one factor, varimax rotation with the Kaiser normalization was utilized (Kremelberg, 2010) and converged within six iterations. Table 5.6 reflects the total variance explained by the factors. Figure 5.1 presents the Scree Plot, which is a visualization of these eigenvalues.

Table 5.6

Principal Component Analysis with Varimax Rotation

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative</td>
</tr>
<tr>
<td>1</td>
<td>5.385</td>
<td>31.674</td>
<td>31.674</td>
</tr>
<tr>
<td>2</td>
<td>1.954</td>
<td>11.496</td>
<td>43.170</td>
</tr>
<tr>
<td>3</td>
<td>1.423</td>
<td>8.371</td>
<td>51.541</td>
</tr>
<tr>
<td>4</td>
<td>1.065</td>
<td>6.264</td>
<td>57.805</td>
</tr>
<tr>
<td>5</td>
<td>0.987</td>
<td>5.808</td>
<td>63.614</td>
</tr>
<tr>
<td>6</td>
<td>0.863</td>
<td>5.075</td>
<td>68.689</td>
</tr>
<tr>
<td>7</td>
<td>0.756</td>
<td>4.447</td>
<td>73.136</td>
</tr>
<tr>
<td>8</td>
<td>0.704</td>
<td>4.139</td>
<td>77.275</td>
</tr>
<tr>
<td>9</td>
<td>0.602</td>
<td>3.544</td>
<td>80.819</td>
</tr>
<tr>
<td>10</td>
<td>0.576</td>
<td>3.387</td>
<td>84.206</td>
</tr>
<tr>
<td>11</td>
<td>0.508</td>
<td>2.988</td>
<td>87.194</td>
</tr>
<tr>
<td>12</td>
<td>0.480</td>
<td>2.821</td>
<td>90.015</td>
</tr>
<tr>
<td>13</td>
<td>0.443</td>
<td>2.606</td>
<td>92.621</td>
</tr>
<tr>
<td>14</td>
<td>0.416</td>
<td>2.450</td>
<td>95.071</td>
</tr>
<tr>
<td>15</td>
<td>0.377</td>
<td>2.215</td>
<td>97.287</td>
</tr>
<tr>
<td>16</td>
<td>0.253</td>
<td>1.489</td>
<td>98.776</td>
</tr>
<tr>
<td>17</td>
<td>0.208</td>
<td>1.224</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis
Figure 5.1

Scree Plot

Table 5.6 and Figure 5.1 confirm that four factors were established across the 17 questions, with two items not loading onto any of the factors based on an accepted component matrix score of 0.5 or higher (Kremelberg, 2010). The component matrix below (Table 5.7) reflects the split of variables across the four new factors.

Table 5.7

Rotated Component Matrix

<table>
<thead>
<tr>
<th>Procedural justice survey items</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
<th>Component 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to give everyone a good reason why officers are stopping them, even if there is no need.</td>
<td>0.678</td>
<td>-0.095</td>
<td>-0.020</td>
<td>-0.066</td>
</tr>
<tr>
<td>If citizens ask officers to explain their actions towards the citizen, the officer should stop and provide the explanation to the citizen.</td>
<td>0.658</td>
<td>-0.096</td>
<td>0.012</td>
<td>0.042</td>
</tr>
<tr>
<td>When dealing with citizens’ concerns, officers need to explain what will happen next, when they are done at the scene.</td>
<td>0.707</td>
<td>-0.088</td>
<td>0.059</td>
<td>0.109</td>
</tr>
<tr>
<td>It is important that officers appear neutral in their application of legal practices and procedures.</td>
<td>0.782</td>
<td>-0.033</td>
<td>0.018</td>
<td>0.057</td>
</tr>
<tr>
<td>Listening to citizens, and addressing their concerns, is an effective way to gain control of a situation.</td>
<td>0.840</td>
<td>-0.044</td>
<td>0.015</td>
<td>0.063</td>
</tr>
</tbody>
</table>
Officer should always be perceived to have a sincere interest in what citizens say.  
Officers should treat all citizens with dignity and respect.  
It is important that officers remind people they have rights and that officers appear to follow them.  
Law enforcement officers have enough trust in the public for them to work together effectively.  
Officers should treat citizens as if they can be trusted to do the right thing.  
Officers have good reason to be distrustful of citizens.  
It is naive to trust citizens.  
Officers and citizens have the same ‘sense of right and wrong’.
Generally speaking, most people are on the side of the law when it comes to what is right and wrong.
There are examples where an officer was clearly justified in exceeding the use of force continuum.
Use of force laws leave officers no discretion.
Use of force laws continually put officers at risk.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers should always be perceived to have a sincere interest in what citizens say.</td>
<td>0.838</td>
<td>-0.058</td>
<td>-0.033</td>
<td>0.089</td>
</tr>
<tr>
<td>Officers should treat all citizens with dignity and respect.</td>
<td>0.862</td>
<td>0.018</td>
<td>0.025</td>
<td>0.066</td>
</tr>
<tr>
<td>It is important that officers remind people they have rights and that officers appear to follow them.</td>
<td>0.758</td>
<td>0.139</td>
<td>-0.153</td>
<td>0.112</td>
</tr>
<tr>
<td>Law enforcement officers have enough trust in the public for them to work together effectively.</td>
<td>0.410</td>
<td>0.200</td>
<td>-0.457</td>
<td>0.229</td>
</tr>
<tr>
<td>Officers should treat citizens as if they can be trusted to do the right thing.</td>
<td>0.498</td>
<td>0.130</td>
<td>-0.478</td>
<td>0.174</td>
</tr>
<tr>
<td>Officers have good reason to be distrustful of citizens.</td>
<td>0.148</td>
<td>0.131</td>
<td>0.748</td>
<td>0.062</td>
</tr>
<tr>
<td>It is naive to trust citizens.</td>
<td>0.043</td>
<td>0.229</td>
<td>0.684</td>
<td>-0.155</td>
</tr>
<tr>
<td>Officers and citizens have the same ‘sense of right and wrong’.</td>
<td>0.076</td>
<td>-0.109</td>
<td>-0.080</td>
<td>0.784</td>
</tr>
<tr>
<td>Generally speaking, most people are on the side of the law when it comes to what is right and wrong.</td>
<td>0.109</td>
<td>-0.032</td>
<td>-0.088</td>
<td>0.763</td>
</tr>
<tr>
<td>There are examples where an officer was clearly justified in exceeding the use of force continuum.</td>
<td>-0.021</td>
<td>0.551</td>
<td>0.165</td>
<td>0.112</td>
</tr>
<tr>
<td>Use of force laws leave officers no discretion.</td>
<td>-0.047</td>
<td>0.779</td>
<td>-0.050</td>
<td>-0.138</td>
</tr>
<tr>
<td>Use of force laws continually put officers at risk.</td>
<td>-0.088</td>
<td>0.758</td>
<td>0.089</td>
<td>-0.148</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis
a. Rotation converged in 6 iterations.

To confirm the placement of each variable into the respective new components, Cronbach’s alpha was also calculated across each grouping. Utilizing the generally accepted Cronbach’s alpha cutoff of 0.70 (Cronbach, 1951; Nunnally, 1978), only component 1 meets this criterion with an $\alpha=0.902$. Components 2, 3, and 4 had respective alphas of 0.528, 0.535, and 0.479. Factor analysis and Cronbach’s alpha of the same set of post-training questions resulted in identical factor breakdowns.

Based on the findings of the principal factor analysis with varimax rotation and subsequent Cronbach’s alpha computations, four new composite variables were constructed. Component 1 ($\alpha=0.902$) served as the primary indicator of procedural justice attitudes in the subsequent analyses of the research questions. The other composite measures were explored as additional variables of interest and were included as dependent variables in regression models. In addition, the two procedural justice questions which did not load on to any of the factors were...
combined into a fifth composite measure, reflecting overall ability to trust community members ($\alpha=0.667$).

While this latter alpha and those of the other composite measures are slightly lower than generally accepted cut-offs, and findings utilizing these measures should be interpreted with caution (Nunnally, 1978; Tavakol & Dennick, 2011), the exploratory nature of the analyses will allow for a better understanding of the usefulness of these items in the instrument and determine if they contribute to changes in attitudinal outcomes. Since all variables within each component are aligned on the same scale (1 – 5), each new composite measure is simply represented as a summation of the scores for each variable included. For example, the eight items in component 1, related to procedural justice and each asked on a 1-5 scale, were combined into one composite measure with a maximum value of 40. The breakdown of each new component and composite variable can be found in Table 5.8. These new variables were made for both the pre- and post-training sets of questions.

**Table 5.8**

*New Composite Variables for Procedural Justice Attitudes*

<table>
<thead>
<tr>
<th>Component Variable</th>
<th>Individual Variables Included</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Component 1</strong></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Procedural Justice</td>
<td>It is important to give everyone a good reason why officers are stopping them, even if there is no need. If citizens ask officers to explain their actions towards the citizen, the officer should stop and provide the explanation to the citizen. When dealing with citizens' concerns, officers need to explain what will happen next, when they are done at the scene. It is important that officers appear neutral in their application of legal practices and procedures. Listening to citizens, and addressing their concerns, is an effective way to gain control of a situation. Officers should always be perceived to have a sincere interest in what citizens say. Officers should treat all citizens with dignity and respect. It is important that officers remind people they have rights and that officers appear to follow them.</td>
<td></td>
</tr>
</tbody>
</table>
Component 2
Use of Force
There are examples where an officer was clearly justified in exceeding the use of force continuum.
Use of force laws leave officers no discretion.
Use of force laws continually put officers at risk.

Component 3
Distrust of Citizens
Officers have good reason to be distrustful of citizens.
It is naive to trust citizens.

Component 4
Shared Values
Officers and citizens have the same 'sense of right and wrong'.
Generally speaking, most people are on the side of the law when it comes to what is right and wrong.

Component 5
Trust of Citizens
Law enforcement officers have enough trust in the public for them to work together effectively.
Officers should treat citizens as if they can be trusted to do the right thing.

Confirming Normality and Power

Following the creation of these composite measures, the distribution of scores for each new variable was evaluated to confirm the assumption of normality. The Kolmogorov-Smirnov test of normality (IBM, 2024) indicated that the composite measures were not normally distributed (p < .001). As can be seen in Figure 5.2, most measures, other than procedural justice attitudes, were close to being normally distributed but did not actually meet this standard. This is likely the result of officers electing to participate in, or being selected for, de-escalation training; these individuals may be more likely to already have positive attitudes toward procedural justice and other use-of-force/de-escalation issues.

Due to normality concerns, skew and kurtosis statistics for each of the composite variables were explored further. Despite the results of the Kolmogorov-Smirnov statistical tests for normal distributions, all new variables except for Procedural Justice had a skew statistic of between positive and negative 1.0, indicating acceptable normality for use in parametric tests (Bulmer, 1979; Demir, 2022). To transform the Procedural Justice measures, new variables were created to represent the squared scores of the original measures, which reduced (but did not fully eliminate) the negative skew (Osborne, 2002; Hair et al., 2022; West et al., 1995). The analyses
throughout this chapter will reflect findings related to the original composite measures, as additional analyses indicated that utilizing the squared measure did not impact the findings.

**Figure 5.2**

*Distributions of Composite Measures*
Normal Q-Q Plot of Sum of Post Disturb. (Max Score = 10).

Normal Q-Q Plot of Sum of Pre Shared Values (Max Score = 10)

Normal Q-Q Plot of Sum of Post Shared Values (Max Score = 10)
Research Question 1

The first research question explored the predictive nature of individual demographics and pre-training attitudes towards procedural justice issues on training simulation performance. Training simulation scores were recoded into three primary questions: 1) if the student correctly identified the DISC personality type displayed, 2) whether the student’s response was appropriate, and 3) whether the student’s intervention was effective for the displayed personality type.

First, statistical comparisons were made to determine how simulation performance changed following exposure to NDTC’s training program. Non-parametric McNemar and
Wilcoxon tests (Argyrous, 1997) were conducted to evaluate if any significant behavioral changes occurred in relation to participation in training. Overall, the findings suggest that the null hypothesis can be rejected in each comparison, indicating a significant change in how officers approached scenarios and utilized de-escalation strategies after training exposure.

During training simulations, trainers displayed specific personality types to program participants, as designated by the DISC profiling system. Officers were then asked to identify that personality type and attempt to de-escalate in accordance with what is known about how that personality best responds to others. As such, it is first important to understand if officers improved in their ability to correctly identify the personality types based on the displayed behaviors. In the simulation pre- and post-test surveys, if the personality type displayed by the trainers and the personality type identified by the participant matched, officers were considered to have correctly identified the DISC profile. A dummy variable was created to reflect whether the participant did (1) or did not (0) correctly identify the DISC personality within the simulation. Given the dichotomous nature of this outcome variable, the nonparametric McNemar test for paired-sample nominal variables is most appropriate (Argyrous, 1997; Sundjaja et al., 2023). The marginal homogeneity of pre- and post-training accuracy is compared to determine if the changes in outcomes across time are both significant and non-random (Sundjaja et al., 2023). The McNemar test suggests a significant difference (p < .001) between pre- and post-training identification of the DISC personalities, indicating that a greater proportion of officers were able to pinpoint different personalities in a rapid assessment simulation following exposure to training.

Table 5.9

McNemar Test of Differences
Before Training – Correctly identified DISC personality

<table>
<thead>
<tr>
<th></th>
<th>After Training - Correctly identified DISC personality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>No</td>
<td>106</td>
</tr>
<tr>
<td>Yes</td>
<td>21</td>
</tr>
</tbody>
</table>

Asymptomatic p < .001

Officers were also asked to enter the training scenario and de-escalate based on how they perceived the situation and believed they could best address the issue. During each simulation, trainers determined how appropriate the intervention was based on the dimensions (task vs people; introvert vs extrovert) of the actor’s DISC personality. Trainers then indicated whether each student’s intervention was appropriate based on a three-point scale: 1) did not apply an appropriate intervention, 2) appropriate on 1 dimension, or 3) appropriate on both dimensions.

Trainers also reported on a scale of 1 (not at all effective) to 5 (extremely effective) how effectively participants implemented a de-escalation strategy.

Nonparametric Wilcoxon signed-rank tests were utilized with these ordinal measures (Argyrous, 1997; Sundjaja et al., 2023). Table 5.10 reflects the negative rank, positive rank, and ties of each pre-post measure. These indicators show the number of individuals who did worse, better, and the same at appropriately and effectively applying de-escalation strategies from pre-to post-test, respectively. These results indicate that most individuals improved their ability to apply appropriate and effective de-escalation strategies based on the DISC personality type.

**Table 5.10**

*Wilcoxon Test of Post-Training Simulation Interventions*

<table>
<thead>
<tr>
<th>Was the intervention applied appropriate for the personality type displayed?</th>
<th>N</th>
<th>Mean Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>71</td>
<td>154.5</td>
</tr>
<tr>
<td>Positive</td>
<td>416</td>
<td>212.97</td>
</tr>
<tr>
<td>Ties</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>507</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Was the intervention applied effective for the personality type displayed?</th>
<th>N</th>
<th>Mean Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>98</td>
<td>165.22</td>
</tr>
<tr>
<td>Positive</td>
<td>448</td>
<td>230.28</td>
</tr>
<tr>
<td>Ties</td>
<td>69</td>
<td></td>
</tr>
</tbody>
</table>
The statistical significance of these findings (p<.001) indicates that officers improved in their identification of the dimensions of personality type and adapted their responses accordingly. These findings reflect that trainers felt participants applied more appropriate de-escalation techniques based on personality type dimensions during the post-training simulation and were able to utilize knowledge learned to improve the ways in which they approached de-escalation opportunities.

To more fully answer the first research question, dummy variables of the post-test simulation scores were utilized as dependent variables. Dichotomous variables for both appropriate and effective intervention were developed. The three-point appropriate intervention variable was recoded into whether the individual appropriately addressed one or both personality dimensions (1) or did not appropriately address any dimensions (0). The five-point effectiveness scale was reduced into whether or not trainers identified their response as either not at all effective (0) or at least moderately effective (1).

Key demographic variables, such as region location, gender, race, ethnicity, education status, primary duty (patrol or other), years at current agency, and type of training attended were included as predictor variables. Additionally, the pre-test procedural justice, trust, distrust, shared values, and use of force composite scores are also included as predictors in the regression model. These variables were chosen in consideration of prior literature that suggests that prior attitudes and specific identities, such as gender and education status, may largely inform use-of-force among police (Paoline & Terrill, 2003, 2007; Schuck & Rabe-Hemp, 2005; Terrill & Mastrofski, 2002).
When conducting binary logistic regression, several diagnostic concerns must be evaluated, such as collinearity of independent variables, linearity of independent variables with the log-odds, and adequate sample size (Hosmer & Lemeshow, 1989; Stoltzfus, 2011). A general rule of thumb typically suggests a minimum of 20 cases per independent variable in logistic regression models, which is exceeded in the subsequent analyses (Austin & Steyerberg, 2017; Gudicha et al., 2017). The large sample size and subsequent power in the current models reduces concern about the linear relationships of the independent variables with the logit of the dependent variables (Wilson VanVoorhis & Morgan, 2007). With a sample size of about 500 individuals, each model created to address this research question far exceeds the 20 case per independent variable threshold. Multicollinearity was also determined to not be present among the independent variables utilized. None of the bivariate correlations exceeded -.264, with the exception of Procedural Justice and Trust composite scores (Pearson’s r = .468), which are closely aligned theoretically (Tyler, 1989). However, diagnostics confirm that even these variables do not have high collinearity, with no Variance Inflation Factor (VIF) nearing the generally accepted threshold of 4.0 or higher (Ghinea et al., 2016; Thompson et al., 2017).

Utilizing a partial and complete regression modeling approach, the current study sought to identify the most prominent predictors of post-training simulation scores and integration of the DISC personality assessment model into de-escalation strategies. The first set of models utilized the dummy dependent variable of appropriateness of participants’ interventions during the post-training simulation. Model 1 reflects the use of only demographic variables that are believed to inform training outcomes, such as region location, length of training (2-day vs. 5-day), gender, race, ethnicity, years on force, primary duty, and education level. Model 2 then retained all demographic variables and added the composite measures of pre-training procedural justice.
attitudes. As seen in Table 5.11, categorical demographic variables were measured in contrast to the reference category, including “White/Caucasian” for the race variable, “Patrol” for primary duties, and “HS Diploma/GED” for education status.

Table 5.11

_Logistic Regression: Applying Appropriate Interventions and Pre-Training Attitudes_

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (Nagelkerke r-squared = .099)</th>
<th>Model 2 (Nagelkerke r-squared = .125)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N = 519$</td>
<td>$N = 517$</td>
</tr>
<tr>
<td>Region</td>
<td>B</td>
<td>S.E.</td>
</tr>
<tr>
<td>5-day Training</td>
<td>.303</td>
<td>.416</td>
</tr>
<tr>
<td>Gender</td>
<td>-.930</td>
<td>.758</td>
</tr>
<tr>
<td>Race – Black/African American</td>
<td>-.368</td>
<td>.533</td>
</tr>
<tr>
<td>Race – Other</td>
<td>.444</td>
<td>1.057</td>
</tr>
<tr>
<td>Hispanic/Latino(a)</td>
<td>.482</td>
<td>.585</td>
</tr>
<tr>
<td>Education – Some College</td>
<td>1.332</td>
<td>.556</td>
</tr>
<tr>
<td>Education – Associate’s</td>
<td>2.538</td>
<td>1.092</td>
</tr>
<tr>
<td>Education – Bachelor’s</td>
<td>.751</td>
<td>.508</td>
</tr>
<tr>
<td>Education – Post-Bachelor</td>
<td>1.211</td>
<td>.846</td>
</tr>
<tr>
<td>Years at Current Agency</td>
<td>-.034</td>
<td>.023</td>
</tr>
<tr>
<td>Primary Duty - Other</td>
<td>.142</td>
<td>.446</td>
</tr>
<tr>
<td>Pre-test Procedural Justice</td>
<td>.152</td>
<td>.030</td>
</tr>
<tr>
<td>Pre-test Trust</td>
<td>.002</td>
<td>.148</td>
</tr>
<tr>
<td>Pre-test Shared Values</td>
<td>.012</td>
<td>.100</td>
</tr>
</tbody>
</table>

*Sig. p<.05

Findings from Model 1 suggest that only education significantly (p < .05) predicted post-training performance in the ability to apply an appropriate intervention based on one or both DISC personality dimensions. Individuals who reported having some college experience had 3.789 times the odds (p = .017) of appropriately responding to the DISC personality type compared to individuals with only a high school diploma or GED. When individuals had an Associate’s degree, compared to a high school diploma or GED, their odds of performing better on the post-training simulation (appropriately responding to one or both personality dimensions) were over 12 times greater (Exp(b) = 12.655; p = .020). The effects of having obtained a
Bachelor’s degree or higher were in the same positive direction but did not reach statistical significance. Individuals with some college or an Associate’s make up about 43% of the entire sample, which may influence the results of the significance tests. In addition, these findings may suggest that college education and experience contribute to one’s ability to retain and utilize skills learned within in-service training. Finally, the effects of having attended the 5-day Train-the-Trainer instead of the 2-day program approached but did not reach significance (Exp(b) = 2.52; p = .065).

Model 2 incorporated procedural justice attitudes at intake in the form of the composite scores developed through factor analysis. While having some college experience (Exp(b) = 3.570; p = .024) or an Associate’s degree (Exp(b) = 15.609; p = .014) remained significant predictors of exhibiting appropriate de-escalation strategy, the pre-existing attitudes towards procedural justice and related crisis intervention concepts did not have any significant predictive effects. These findings once again suggest the importance of exposure to higher education in being able to appropriately tailor de-escalation response strategies based on the skills learned in an in-service training.

The second set of models utilized the dummy variable of the effectiveness of participants’ interventions during the post-training simulation (Not at All Effective or At Least Moderately Effective). The partial model (Model 1) similarly included demographic variables to determine the predictive effect of these identifiers on intervention effectiveness. The complete model (Model 2) then incorporated procedural justice attitude composite scores to determine if these attitudes inform the effectiveness with which one can respond to a specific personality type while in crisis.

Table 5.12
Logistic Regression: Applying Effective Interventions and Pre-Training Attitudes

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Nagelkerke r-squared = .102)</td>
<td></td>
<td>(Nagelkerke r-squared = .123)</td>
</tr>
<tr>
<td></td>
<td>N=519</td>
<td></td>
<td>N=517</td>
</tr>
<tr>
<td>B S.E.</td>
<td>Sig.</td>
<td>Exp(B)</td>
<td>B S.E.</td>
</tr>
<tr>
<td>Region</td>
<td>.395</td>
<td>.367</td>
<td>.282</td>
</tr>
<tr>
<td>5-day Training</td>
<td>.676</td>
<td>.413</td>
<td>.102</td>
</tr>
<tr>
<td>Gender</td>
<td>-.896</td>
<td>.631</td>
<td>.156</td>
</tr>
<tr>
<td>Race – Black/African American</td>
<td>-.258</td>
<td>.488</td>
<td>.597</td>
</tr>
<tr>
<td>Race – Other</td>
<td>.038</td>
<td>.778</td>
<td>.961</td>
</tr>
<tr>
<td>Hispanic/Latino(a)</td>
<td>.310</td>
<td>.493</td>
<td>.529</td>
</tr>
<tr>
<td>Education – Some College</td>
<td>1.288</td>
<td>.473</td>
<td>.006**</td>
</tr>
<tr>
<td>Education – Associate’s</td>
<td>2.853</td>
<td>1.071</td>
<td>.008**</td>
</tr>
<tr>
<td>Education – Post-Bachelor</td>
<td>1.161</td>
<td>.705</td>
<td>.100</td>
</tr>
<tr>
<td>Year at Current Agency</td>
<td>-.027</td>
<td>.020</td>
<td>.190</td>
</tr>
<tr>
<td>Primary Duties - Other</td>
<td>-.128</td>
<td>.381</td>
<td>.737</td>
</tr>
<tr>
<td>Pre-test Procedural Justice</td>
<td>.019</td>
<td>.028</td>
<td>.504</td>
</tr>
<tr>
<td>Pre-test Trust</td>
<td>.019</td>
<td>.103</td>
<td>.852</td>
</tr>
<tr>
<td>Pre-test Distrust</td>
<td>.092</td>
<td>.129</td>
<td>.479</td>
</tr>
<tr>
<td>Pre-test Shared Values</td>
<td>.065</td>
<td>.123</td>
<td>.599</td>
</tr>
<tr>
<td>Pre-test Use of Force</td>
<td>-.161</td>
<td>.089</td>
<td>.069</td>
</tr>
</tbody>
</table>

*Sig. p<.05; **p<.01

Analyses evaluating the effectiveness of participants’ interventions revealed similar findings related to the appropriateness of their de-escalation strategy. The partial model, which utilized a series of demographic variables, identified only educational status as significantly impacting the effectiveness of one’s de-escalation tactics during the post-training simulation. Having some college education or an Associate’s degree were significant (p < .01) predictors of developing a more effective de-escalation strategy, as compared to having a high school diploma or GED. Some college experience led to about 3.6 times greater odds of engaging in at least a moderately effective strategy, and having an Associate’s degree was predictive of over 17 times greater odds of utilizing an effective intervention during the post-training simulation. In addition, this model also found that having a Bachelor’s degree significantly (p < .05) improved the effectiveness of participants’ strategies, giving them about 2.5 times greater odds of being at least moderately effective in their intervention. Model 2 then incorporated pre-training attitudes as

89
predictors. Once again, pre-training attitudes regarding procedural justice had no significant influence on the effectiveness with which participants engaged a de-escalation strategy.

Across all models and both outcomes, the Nagelkerke r-squared, which is a measure of model fit, suggested that the variables included account for a relatively small amount of the variation in the outcomes overall (min = .099; max = .102). Contrary to prior literature (Paoline & Terrill, 2007; Schuck & Rabe-Hemp, 2005; Rosenbaum & McCarty, 2016), this suggests that, for the current sample, demographics and predispositions towards procedurally just policing did not substantially inform one’s ability to appropriately and effectively apply the de-escalation strategies learned in training. As such, the limitations of these findings and suggested considerations for NDTC’s future data collection are explored in further detail in the Discussion Chapter.

As an additional analytical procedure, the Procedural Justice composite score, which was previously found to be negatively skewed, was squared to transform the variable (Osborne, 2002). This effort improved its normality but did not quite meet standard cutoffs for a normal distribution (Hair et al., 2022; West et al., 1995). For exploratory purposes, this squared measure was used to replace the original composite measure in the logistic regression models, to determine if this resulted in a change to the predictive effective of these attitudes. However, these models did not differ in their explained variance, nor in the predictive effects of each independent variable. As such, the models presented utilized only the original measure for consistency with other scales. In addition, post-training attitudes towards procedural justice issues were also analyzed in identical models to those previously presented, but the post-training attitudes had no impact on the overall explained variance or the significance of each predictor. Moreover, participants often engaged in the post-training simulation prior to completing the
course evaluation, so it seemed questionable to use or highlight these models, which do not
temporally predict the outcome variable of interest. As a result, findings from these models are
not presented.

**Research Question 2**

The second research question initially intended for this study sought to evaluate changes
in on-duty use-of-force among agencies who have sent officers to the training. Utilizing a paired-
sample t-test and monthly use-of-force counts provided by agencies for up to 5 years prior to,
and following, training participation, the current research question was intended to determine if
significant differences in on-duty behaviors occurred in relation to exposure to NDTC’s program.
All agencies who participated in NDTC’s training were asked to complete the Agency Data
Survey and voluntarily provide monthly use-of-force counts as available.

Upon the study period's completion, NDTC gave the researcher all available data for
individual trainees and participating agencies. However, only four agencies had provided any
use-of-force data. These agencies were statistical outliers, as they all represented very small
agencies; therefore, the data could not be used to sufficiently measure in-group differences with
any sort of statistical power or reliability. It remains the goal of NDTC to seek out this data from
agencies so that future studies may analyze behavioral, on-duty changes related to training
attendance and further the burgeoning empirical evidence in this area (Engel et al., 2022a;
2022b; Goh, 2021).

**Research Question 3**

The third research question sought to determine whether attendance at training informed
changes in officers’ perceptions of procedural justice and crisis intervention issues. In accordance
with previous literature (Giacomantonio et al., 2020; White et al., 2021b), it was hypothesized
that attendance at training would result in improved attitudes towards the principles of procedural justice, such as giving citizens voice, trust, neutrality, and the appropriateness of use of force. In addition, questions regarding crisis intervention and stereotypes about individuals with serious mental illness were evaluated for change as a large portion of the training explores de-escalation related to mental illness and substance use disorders. To evaluate the differences in attitudes of trainees before and after attending NDTC’s program, composite measures as developed through the factor analysis (see Table 5.8) and individual questions related to crisis intervention were utilized as the variables of interest in a series of paired-sample t-tests.

While t-tests should not be conducted on samples with abnormal distributions, sample size and subsequent power may help reduce the associated risk of Type II errors, or false negatives (Cohen, 1988; Shreffler & Huecker, 2023). In a paired-sample t-test, this would mean failing to reject the null hypothesis when in fact, the two group means are statistically different. Despite skew and kurtosis analyses during the factor analysis suggesting that most composite measures (exception: Procedural Justice attitudes) can still be incorporated into a parametric test, a power analysis (Cohen, 1988) was conducted to confirm these findings specific to the t-tests needed for this research question. Findings confirmed that the sample size was adequate to disregard this risk and determined that statistical differences in the means can still be accurately detected despite the abnormal distribution of included variables. Table 5.13 reflects the findings of this power analysis, indicating that, at a 95% confidence interval, there is 100% certainty that a Type II error, or false negative, cannot occur as a result of sample size among the t-tests utilizing Procedural Justice, Shared Values, and Trust composites. For Use of Force, this overall risk of Type II error remains low, with 98.9% certainty that such an error will not occur at the p<.05 level (see Table 5.11). However, the paired Distrust variables exhibited a power of only
.073 (7.3%), indicating that this one measure is at great risk of a Type II error. Exploration of the t-test results of this measure will include consideration of this risk.

### Table 5.13

**Power Analysis of Paired-Sample t-Tests**

<table>
<thead>
<tr>
<th></th>
<th>Powera</th>
<th>Nb</th>
<th>Sd</th>
<th>Effect Size</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Justice</td>
<td>1.00</td>
<td>494</td>
<td>7.553</td>
<td>.347</td>
<td>.05</td>
</tr>
<tr>
<td>Use of Force</td>
<td>.989</td>
<td>499</td>
<td>1.706</td>
<td>.191</td>
<td>.05</td>
</tr>
<tr>
<td>Distrust</td>
<td>.073</td>
<td>491</td>
<td>1.428</td>
<td>.020</td>
<td>.05</td>
</tr>
<tr>
<td>Shared Values</td>
<td>1.000</td>
<td>500</td>
<td>1.5522</td>
<td>.348</td>
<td>.05</td>
</tr>
<tr>
<td>Trust</td>
<td>1.000</td>
<td>499</td>
<td>2.036</td>
<td>.270</td>
<td>.05</td>
</tr>
</tbody>
</table>

a Two-sided test.  
b Based on noncentral t-distribution.  
c Number of pairs.  
d Standard deviation of the mean difference.

**Procedural Justice Attitudes**

The first paired-sample test explored the difference in mean scores on composite measure #1, which incorporates the first eight procedural justice Likert scale questions. This measure most closely reflects officers’ overall attitudes towards the elements of procedural justice (voice, trust, neutrality, and respect) (Tyler, 1989; 1990). When comparing pre- and post-training mean scores on these composite measures, officers agreed with the procedural justice statements at both timepoints. With the composite measure maximum score being 40 (8 items on a 1-5 scale), the sample had mean scores of 33.27 and 35.89 during their pre and post assessments, respectively.

After confirming the power of the current sample size (1.00, p < .05), a paired-sample t-test was conducted to compare mean scores on the composite procedural justice measure. Due to this power analysis, the original composite measure, not the squared, normalized variable, was used for consistency with other tests. The results of the analysis confirmed that the null hypothesis can be rejected and that there is a statistical difference (p < .001) between pre- and
post-training attitudes towards procedural justice concepts (see Table 5.14). These findings suggest that officers had markedly improved, or more positive, attitudes towards statements addressing the importance of trust, respect, neutrality, and voice (Tyler, 1989; 1990). This initial test confirms the overall hypothesis of the research question, indicating that exposure to NDTC’s training and the concepts included in their DISC de-escalation strategy significantly improved officer attitudes and cognitions towards how they address and communicate with citizens.

Table 5.14

Paired-Sample t-Test of Procedural Justice Attitudes

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>sd</th>
<th>St. Error Mean</th>
<th>Lower CI (95%)</th>
<th>Upper CI (95%)</th>
<th>t</th>
<th>Df</th>
<th>One-Sided p</th>
<th>Two-sided p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Justice</td>
<td>2.619</td>
<td>7.553</td>
<td>.340</td>
<td>1.952</td>
<td>3.287</td>
<td>7.708</td>
<td>493</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Attitudes Pre - Post</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use of Force

The second paired-sample test explored the difference in mean scores on composite measure #2, which incorporated three questions related to use of force. This measure consists of three statements in favor of use of force discretion, including the need to sometimes exceed expected use of force, as well as reinforcing negative perceptions of use of force laws as harmful to officers. With a composite score maximum total of 15 (3 items; 1-5 scale), the pre- and post-training average scores were 8.20 and 7.88, respectively.

After confirming the power of the current sample size (.989, p<.05), a paired-sample t-test was conducted to compare mean scores on the composite use-of-force measure. Results (Table 5.15) suggest that the null hypothesis can be rejected and there is a statistically significant (p < .001) reduction in officers’ support of use-of-force discretion. This reflects the efficacy of the training program in clarifying the role of use-of-force in citizen interactions and the overall
necessity of physical force versus verbal de-escalation. Given the low Cronbach’s alpha of the items in this composite measure ($\alpha=0.528$), caution should be used when interpreting these findings and the overall relationship between these attitudes and program outcomes.

**Table 5.15**

*Paired-Sample t-Test of Use-of-Force Attitudes*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>sd</th>
<th>St. Error Mean</th>
<th>Lower CI (95%)</th>
<th>Upper CI (95%)</th>
<th>t</th>
<th>Df</th>
<th>One-Sided p</th>
<th>Two-sided p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Force Attitudes Pre – Post</td>
<td>-.325</td>
<td>1.706</td>
<td>.076</td>
<td>-.475</td>
<td>-.175</td>
<td>-4.251</td>
<td>498</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

**Distrust**

The third paired t-test explored changes to officers’ overall distrust of citizens in their communities, utilizing a composite measure of two Likert-scale questions (max score = 10). The ability to develop trust with community members and reciprocate that trust in return is central to the tenets of procedural justice (Lind & Tyler, 1988; Tyler, 1989). Composite mean scores on pre- and post-training assessments were 5.65 and 5.63, respectively, representing an overall neutral opinion on the extent to which citizens should not be trusted (see Table 5.16).

These means scores were not found to be statistically different ($t=-.422$, $p=.329$), suggesting that training did not have any impact on the distrust officers have of citizens in their community. However, prior power analyses suggest that there is a significantly high risk of a Type II error (92.7%) with this parametric test and such results should be interpreted with caution. Additionally, the overall low Cronbach’s alpha during the creation of this composite measure ($\alpha=0.535$) reflects an additional need for caution when interpreting these findings.

**Table 5.16**

*Paired-Sample t-Test of Distrust Toward Citizens*
**Shared Values**

Another composite measure created includes Likert-scale statements related to the extent to which officers believe citizens share their same senses of “right and wrong” and are on the side of the law enforcement. This sense of shared values can help inform officer willingness to dismantle the “us versus them” mentality and prioritize the tenets of procedural justice. Mean pre-training (mean = 6.156) and post-training (mean = 6.696) scores (max score = 10), reflect a neutral to slightly positive belief that citizens may have a shared sense of morality with officers.

A paired sample t-test utilizing these composite measures confirmed a marked improvement in these attitudes, significant at the p < .001 level (see Table 5.17). These findings support the notion that NDTC’s training may be helping bridge the perceived gap between officers and the citizens they serve, allowing for a deeper understanding of the shared values and experiences they have with their fellow community members. However, a low Cronbach’s alpha (α = 0.479) during factor analysis on this composite measure, and the relatively moderate mean scores at both time points, indicate that these results should be interpreted with caution.

**Table 5.17**

*Paired-Sample t-Test of Shared Values with Citizens*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>sd</th>
<th>St. Error Mean</th>
<th>Lower CI (95%)</th>
<th>Upper CI (95%)</th>
<th>t</th>
<th>Df</th>
<th>One-Sided p</th>
<th>Two-sided p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distrust Attitudes Pre – Post</td>
<td>-.029</td>
<td>1.428</td>
<td>.064</td>
<td>-.155</td>
<td>.098</td>
<td>-4.22</td>
<td>490</td>
<td>.001</td>
<td>.001</td>
</tr>
</tbody>
</table>
Trust

The last composite measure evaluated for the purposes of the current research question was the combined measure of perceptions of the extent to which citizens can be trusted by officers to do the right thing and work with them effectively. Trust, a central component of procedural justice theory (Lind & Tyler, 1988), is vital for understanding the impact of training on procedural justice attitudes. The exploratory nature of this study will also help solidify the add-value of these items in the overall instrument, as the current factor analysis and Cronbach’s alpha do not suggest that the items making up this composite measure load with the other areas of inquiry.

A paired sample t-test of the trust composite measure (Table 5.18) suggested that officers did in fact experience a significant improvement (p < .001) in their overall sense that they can trust community members, from before training began (mean = 6.93) to their post-training course evaluation (mean = 7.48). On a scale of 10, this reflects relatively moderate to strong beliefs about the extent to which citizens can be trusted to do the right thing and work closely with law enforcement. This is of particular interest for understanding attitudinal change related to participation in NDTC’s program and the emphasis on exploring procedural justice concepts outlined in the program’s curriculum. Keeping in mind the somewhat low Cronbach’s alpha of the items in this composite measure (α = 0.667), caution should be used when interpreting these findings and the significance of the measure’s relationship to overall course outcomes.

Table 5.18

Paired-Sample t-Test of Trust in Communities

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Sd</th>
<th>St. Error Mean</th>
<th>Lower</th>
<th>Upper</th>
<th>t</th>
<th>Df</th>
<th>One-Sided p</th>
<th>Two-sided p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust in Citizens Pre - Post</td>
<td>.549</td>
<td>2.036</td>
<td>.091</td>
<td>.370</td>
<td>.728</td>
<td>6.026</td>
<td>498</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
**Crisis Intervention/Mental Illness**

In addition to the composite measures created, three Likert-scale questions were asked regarding citizens with serious mental illness and their justice system contact. Two of these questions asked participants to indicate the extent to which they agreed with the following statements, on a scale of 1 (Extremely Unlikely) to 5 (Extremely Likely): “A person with mental illness is more or less likely to display outwardly-aggressive behavior when compared to a person who does not have a mental illness” and “The average person with a mental illness is more or less likely to commit a violent crime (i.e., assault/battery, sexual assault, murder).” Lastly, participants are asked what they believe their community’s level of support is for persons with mental illness, on a scale of 1 (Extremely weak) to 5 (Extremely strong).

As these items were not combined into a singular composite measure, Wilcoxon signed-rank tests for ordinal measures of each question were conducted to determine if officer attitudes towards issues of mental illness and crisis intervention changed in relation to training exposure. Analyses suggested a more comprehensive understanding of the role of mental illness in violence and crime, with officers experiencing a statistically significant ($p < .001$) reduction in the extent to which they believed people with mental illness are more likely to display outwardly aggressive behavior (pre/post means = 3.67 and 3.45) and/or commit violent crime (pre/post means =3.35 and 2.83). Officers also experienced a marked increase ($p < .001$) in the perceived level of their community’s support for persons with mental illness (pre/post means = 3.31 and 3.49), despite training not directly addressing ways to improve community-level supports. Despite these statistically significant findings, the average scores still indicate a relatively neutral opinion on all these matters, suggesting that overall opinions of serious mental illness still reinforce some concern over their role in violence and volatility.

98
Table 5.19

*Wilcoxon Test of Perceptions of Mental Illness*

<table>
<thead>
<tr>
<th>Perception</th>
<th>N</th>
<th>Mean Ranks</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A person with mental illness is more or less likely to display outwardly aggressive behavior compared to a person who does not have mental illness.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>169**</td>
<td>135.64</td>
<td>22923.50</td>
</tr>
<tr>
<td>Positive</td>
<td>95</td>
<td>126.91</td>
<td>12056.50</td>
</tr>
<tr>
<td>Ties</td>
<td>233</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>497</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The average person with mental illness is more likely to commit a violent crime.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>236**</td>
<td>136.23</td>
<td>32150.00</td>
</tr>
<tr>
<td>Positive</td>
<td>34</td>
<td>130.44</td>
<td>4435.00</td>
</tr>
<tr>
<td>Ties</td>
<td>224</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>494</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is your community’s level of support for individuals with mental illness?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>67**</td>
<td>95.81</td>
<td>6419.50</td>
</tr>
<tr>
<td>Positive</td>
<td>125</td>
<td>96.87</td>
<td>12108.50</td>
</tr>
<tr>
<td>Ties</td>
<td>304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>496</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* $Z = -4.685  
*b* $Z = -11.582  
*c* $Z = -3.913  
*Asymptomatic p<.001*

Overall, the findings of this series of paired sample t-tests suggest that officers generally improved their perceptions of procedural justice issues, such as giving citizens voice, showing respect for community members during encounters, developing trust, and having a shared sense of morality or values. Additional Wilcoxon analyses suggest improvement in the ways trainees perceive individuals with mental illness and the false narratives around violence and violent crime associated with persons with serious mental illness. Despite these promising improvements, however, mean scores at post-training still reflect an overall neutral to moderate perception of these issues, indicating that officers have not fully or strongly internalized the notions of procedural justice and the necessity of these utilizing these concepts during citizen interactions. Additionally, the low Cronbach’s alpha of the composite measures during initial factor analysis for concepts of Trust, Distrust, Use of Force, and Shared Values reflect a need for caution in the interpretation of these results. Nonetheless, initial findings suggest promising
results from NDTC’s program in relation to producing attitudinal change among participants regarding key concepts related to procedural justice and community relations.

In order to account for the negative skew of the procedural justice variable and slightly abnormal distribution of all composites, further Wilcoxon tests were run to confirm the findings of each t-test. These nonparametric tests reaffirmed the findings, suggesting that participants largely improved in their attitudes towards all procedural justice and crisis intervention concepts except for their distrust in citizens, which did not change significantly over the course of the training. Given the nearly identical findings, only the t-test results were presented here, as they were confirmed by the nonparametric results. Utilizing the Wilcoxon analysis to confirm t-test findings also helps reduce concerns related to Type II error. Distrust, which had the highest risk of this error, was found to be nonsignificant in both the parametric and nonparametric tests, improving confidence in these findings.

**Research Question 4**

The final research question sought to understand the relationship between individual characteristics and procedural justice attitudes, and whether this relationship was moderated by NDTC’s training program. While the original research question also sought to understand the relationship between agency demographics and use-of-force, as with research question #2, the lack of agency-level data that was provided meant that it was not feasible to answer the secondary part of the question at this time. As such, a series of Ordinary Least Squares (OLS) regressions were conducted to determine the effects of individual demographics on pre-training procedural justice and crisis intervention attitudes, utilizing the composite measures created by the factor analysis as the dependent variables. Another set of regressions then explored this same relationship with post-training attitudes and cognitions. To determine moderation effects, the
equation set forth in Paternoster et al. (1998; see Chapter 4) allowed for a comparison of regression coefficients across models, which reflected changes in the influences on pre- and post-training attitudes towards procedural justice and de-escalation.

Demographic variables included in these models mimicked those utilized to answer the first research question, including region, training type, gender, race, ethnicity, education, length of employment at current agency, and primary duties. While length of employment is a continuous variable with an intuitive interpretation in regression models, the rest of these variables are categorical in nature. Ethnicity, Training Type, and Gender were reduced to a dummy coding system for prior analyses. For ease of interpretation and comparison across models, the other categorical variables were recoded as follows for use in linear regression models:

- Region -> RegionNE (Yes/No)
- Race -> White (Yes/No), Black (Yes/No), Other (Yes/No)
- Education -> HS Diploma (Yes/No), Some College (Yes/No), Associate’s (Yes/No), Bachelors (Yes/No), Post-Grad (Yes/No)

These demographics were utilized as coefficients in several models, each of which situates a different composite attitudinal measure as the outcome variable. Categorical demographics will exclude one new dichotomous variable as the reference category (e.g., Race – white; Education – HS Diploma/GED). To answer the question of moderating effects, demographics were used to predict composite attitudinal measures both before and after training. Moderation analysis was then used to determine if differences between these models could be attributed to training exposure. Tables 5.20 through 5.24 highlight the pre- and post-training models for each composite outcome measure. Collinearity diagnostics across all models
indicated that assumptions regarding multicollinearity were not violated, based on a generally accepted VIF cutoff of 4.0 (Ghinea et al., 2016; Thompson et al., 2017).

Findings from Models 1 and 2, which compared the predictive effects of demographic variables on pre- and post-training procedural justice attitudes, respectively, are available in Table 5.20. The results from Model 1 suggest minimal effects across demographic categories. At the pre-training assessment, only years employed at one’s current agency had a significant relationship with procedural justice attitudes (p < .01). For each additional year of service, participants’ composite procedural justice score lowered by .099 points, when controlling for all other variables.

**Table 5.20**

*OLS Regression: Demographics and Procedural Justice Attitudes*

<table>
<thead>
<tr>
<th></th>
<th>Model 1 – Pre-Training Procedural Justice (Adjusted $R^2 = .014$)</th>
<th>Model 2 – Post-Training Procedural Justice (Adjusted $R^2 = .015$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=517</td>
<td>N=474</td>
</tr>
<tr>
<td><strong>Region - Northeast</strong></td>
<td>.243 .640 .379 .705 .018</td>
<td>1.019 .489 2.082 .038* .103</td>
</tr>
<tr>
<td>5 Day Training</td>
<td>1.040 .664 1.567 .118 .073</td>
<td>.996 .508 1.958 .051 .096</td>
</tr>
<tr>
<td>Gender - Male</td>
<td>-.404 .788 -.513 .608 -.023</td>
<td>-.596 .599 -.994 .321 -.047</td>
</tr>
<tr>
<td>Race - Black</td>
<td>.930 .905 1.028 .304 .046</td>
<td>.028 .705 .040 .968 .002</td>
</tr>
<tr>
<td>Race - Other</td>
<td>.452 1.235 .366 .715 .016</td>
<td>-.599 .943 -.635 .526 -.029</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-1.482 .804 -1.844 .066 -.084</td>
<td>.009 .614 .015 .988 .001</td>
</tr>
<tr>
<td>Education – Some College</td>
<td>.682 .955 .714 .475 .047</td>
<td>1.979 .756 2.617 .009** .188</td>
</tr>
<tr>
<td>Education – Associate’s</td>
<td>-.909 1.129 -.805 .421 -.048</td>
<td>1.306 .876 1.490 .137 .096</td>
</tr>
<tr>
<td>Education – Bachelor’s</td>
<td>.476 .961 .495 .621 .035</td>
<td>1.373 .759 1.809 .071 .135</td>
</tr>
<tr>
<td>Education – Post Graduate</td>
<td>.817 1.221 .669 .504 .038</td>
<td>1.535 .950 1.616 .107 .098</td>
</tr>
<tr>
<td>Yrs Employed</td>
<td>-.099 .037 -2.694 .007** -.126</td>
<td>.024 .029 .841 .401 .041</td>
</tr>
<tr>
<td>Primary Duties - Patrol</td>
<td>-.812 .672 -1.208 .228 -.058</td>
<td>.649 .514 1.261 .208 .063</td>
</tr>
</tbody>
</table>

*<p<.05; **p<.01*

This reaffirms qualitative findings from this project (see Chapter 6) in that officers with more time on the force develop a “jaded” attitude towards their communities and experience generational gaps in the goals and attitudes of officers within an agency (Campeau, 2019;
Carrillo & Gromb, 2007). No other demographic variables had a significant relationship with pre-training attitudes towards procedural justice. Ethnicity approached significance, with individuals identifying as Hispanic/Latino having more negative procedural justice attitudes prior to training (p=.066). The standardized beta coefficients in the first model confirmed that Years Employed at one’s current agency had the strongest impact on pre-training procedural justice attitudes (β = -.126), compared to the other variables in the model, although the actual strength of that relationship is rather low.

Following training, a different relationship appeared (Model 2). Type of training became a significant predictor of post-training attitudes (p < .05), with officers in the Northeast having composite procedural justice scores that were about 1 point higher than their peers in Region 2 (Central/Midwest). Having at least some college education also became a significant predictor (p < .01) of procedural justice attitudes, leading to a 1.979 increase in composite scores compared to participants with only a high school diploma/GED. Years employed at one’s current agency was no longer a significant predictor, but training type was nearly significant (p=.051), suggesting that officers who attended the five-day training program had composite procedural justice scores about a full point higher (B= .996) than officers who only attended the two-day program. Ethnicity, which was approaching significance in Model 1, was no longer close to significant, and the slope changed direction – indicating that Hispanic/Latino participants had more negative attitudes at the beginning of training but did not at the end of training. Beta weights in Model 2 suggest that having some college education (β = .188) had the greatest effect on post-training attitudes compared to the other variables included. However, this value was relatively low, indicating that a 1-standard deviation increase in the independent variable was associated with a 0.188 increase in the standard deviation of the outcome.
In consideration of low Adjusted R-squared values, models were run removing least significant variables, but this did not result in any meaningful improvements in Adjusted R-squared or the statistical significance of any individual variables. Similarly, utilizing the normalized, squared values of the procedural justice composite outcomes measure did not alter the independent effects of each variable nor the overall explained variance of the models, so the original measure was used for consistency with other analyses. All other diagnostic checks confirmed that the assumptions of the regression model were not violated.

Table 5.21 includes Models 3 and 4, which explored the relationship between demographics and pre- and post-training trust of officers with their community (composite score 1-10).

**Table 5.21**

**OLS Regression: Demographics and Community Trust**

<table>
<thead>
<tr>
<th>Model 3 – Pre-Training Community Trust</th>
<th>Model 4 – Post-Training Community Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(Adjusted $R^2 = .015$)</em></td>
<td><em>(Adjusted $R^2 = .017$)</em></td>
</tr>
<tr>
<td><strong>N=517</strong></td>
<td><strong>N=479</strong></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td><strong>SE B</strong></td>
<td><strong>SE B</strong></td>
</tr>
<tr>
<td><strong>t</strong></td>
<td><strong>t</strong></td>
</tr>
<tr>
<td><strong>Sig.</strong></td>
<td><strong>Sig.</strong></td>
</tr>
<tr>
<td><strong>β</strong></td>
<td><strong>β</strong></td>
</tr>
<tr>
<td>Region - Northeast</td>
<td>Region - Northeast</td>
</tr>
<tr>
<td>-.075</td>
<td>-.110</td>
</tr>
<tr>
<td>.186</td>
<td>.163</td>
</tr>
<tr>
<td>-.401</td>
<td>-.676</td>
</tr>
<tr>
<td>.688</td>
<td>.500</td>
</tr>
<tr>
<td>-.019</td>
<td>-.033</td>
</tr>
<tr>
<td>5 Day Training</td>
<td>5 Day Training</td>
</tr>
<tr>
<td>.100</td>
<td>.208</td>
</tr>
<tr>
<td>.193</td>
<td>.170</td>
</tr>
<tr>
<td>.519</td>
<td>1.225</td>
</tr>
<tr>
<td>.604</td>
<td>.221</td>
</tr>
<tr>
<td>.024</td>
<td>.059</td>
</tr>
<tr>
<td>Gender - Male</td>
<td>Gender - Male</td>
</tr>
<tr>
<td>.367</td>
<td>.341</td>
</tr>
<tr>
<td>.230</td>
<td>.199</td>
</tr>
<tr>
<td>1.600</td>
<td>1.715</td>
</tr>
<tr>
<td>.110</td>
<td>.087</td>
</tr>
<tr>
<td>.072</td>
<td>.080</td>
</tr>
<tr>
<td>Race - Black</td>
<td>Race - Black</td>
</tr>
<tr>
<td>-.065</td>
<td>.060</td>
</tr>
<tr>
<td>.264</td>
<td>.234</td>
</tr>
<tr>
<td>-.245</td>
<td>-.258</td>
</tr>
<tr>
<td>.807</td>
<td>.797</td>
</tr>
<tr>
<td>-.011</td>
<td>.012</td>
</tr>
<tr>
<td>Race - Other</td>
<td>Race - Other</td>
</tr>
<tr>
<td>.027</td>
<td>.115</td>
</tr>
<tr>
<td>.360</td>
<td>.316</td>
</tr>
<tr>
<td>.074</td>
<td>.365</td>
</tr>
<tr>
<td>.941</td>
<td>.715</td>
</tr>
<tr>
<td>.003</td>
<td>.017</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Ethnicity</td>
</tr>
<tr>
<td>-.514</td>
<td>-.356</td>
</tr>
<tr>
<td>.234</td>
<td>.205</td>
</tr>
<tr>
<td>-.2195</td>
<td>-.1736</td>
</tr>
<tr>
<td>.029*</td>
<td>.083</td>
</tr>
<tr>
<td>-.100</td>
<td>-.082</td>
</tr>
<tr>
<td>Education – Some College</td>
<td>Education – Some College</td>
</tr>
<tr>
<td>.176</td>
<td>.174</td>
</tr>
<tr>
<td>.278</td>
<td>.253</td>
</tr>
<tr>
<td>.634</td>
<td>.690</td>
</tr>
<tr>
<td>.526</td>
<td>.491</td>
</tr>
<tr>
<td>.042</td>
<td>.049</td>
</tr>
<tr>
<td>Education – Associate’s</td>
<td>Education – Associate’s</td>
</tr>
<tr>
<td>-.513</td>
<td>-.045</td>
</tr>
<tr>
<td>.329</td>
<td>.293</td>
</tr>
<tr>
<td>-1.558</td>
<td>-.153</td>
</tr>
<tr>
<td>.120</td>
<td>.878</td>
</tr>
<tr>
<td>-.093</td>
<td>-.010</td>
</tr>
<tr>
<td>Education – Bachelor’s</td>
<td>Education – Bachelor’s</td>
</tr>
<tr>
<td>-.109</td>
<td>.203</td>
</tr>
<tr>
<td>.280</td>
<td>.254</td>
</tr>
<tr>
<td>-.388</td>
<td>.800</td>
</tr>
<tr>
<td>.698</td>
<td>.424</td>
</tr>
<tr>
<td>-.027</td>
<td>.060</td>
</tr>
<tr>
<td>Education – Post Graduate</td>
<td>Education – Post Graduate</td>
</tr>
<tr>
<td>-.025</td>
<td>.330</td>
</tr>
<tr>
<td>.356</td>
<td>.318</td>
</tr>
<tr>
<td>-.070</td>
<td>1.038</td>
</tr>
<tr>
<td>.944</td>
<td>.300</td>
</tr>
<tr>
<td>-.004</td>
<td>.062</td>
</tr>
<tr>
<td>Yrs Employed</td>
<td>Yrs Employed</td>
</tr>
<tr>
<td>-.014</td>
<td>.013</td>
</tr>
<tr>
<td>.011</td>
<td>.010</td>
</tr>
<tr>
<td>-1.274</td>
<td>1.363</td>
</tr>
<tr>
<td>.203</td>
<td>.174</td>
</tr>
<tr>
<td>-.060</td>
<td>.067</td>
</tr>
<tr>
<td>Primary Duties - Patrol</td>
<td>Primary Duties - Patrol</td>
</tr>
<tr>
<td>-.380</td>
<td>-.246</td>
</tr>
<tr>
<td>.196</td>
<td>.171</td>
</tr>
<tr>
<td>-1.939</td>
<td>-1.436</td>
</tr>
<tr>
<td>.053</td>
<td>.152</td>
</tr>
<tr>
<td>-.092</td>
<td>-.071</td>
</tr>
</tbody>
</table>

* *p<.05

In Model 3 (pre-training community trust), only participant ethnicity was significant (p < .05), with individuals who identified as Hispanic/Latino having lower levels of community trust than their non-Hispanic counterparts (B = -.514). In this model, having patrol duties approached
significance (p=.053), with these individuals being less trusting of their community. At post-
training, ethnicity was no longer a significant predictor of community trust. Ethnicity also
represented the largest standardized beta weight in the pre-training (β = .100) and post-training
(β = -.082) models, indicating that, compared to other independent variables, it had the greatest
impact on levels of community trust at both timepoints. No other variables were significant in
either model.

Adjusted R-squared values suggest that Models 3 and 4 account for about 1.5% and 1.7%
of the variance in the dependent variables, respectively. This is a very small amount of explained
variance, and removal of highly insignificant variables (such as education and race) did not result
in any marked improvements – only patrol duties became significant at the p < .05 level in
Model 3, but no changes resulted in Model 4. As a result, these models were not explored further.
Other statistical assumptions of the regression models were evaluated and determined to not have
been violated.

Table 5.22 reflects the results of Models 5 and 6, which explored the effect of
demographic variables on 10-point composite measures of distrust of one’s community. Model 5,
which utilizes pre-training attitudes as the outcome variable, found that no demographic variable
had a significant relationship with these attitudes. The Adjusted R-squared of .011 reflects that
this model has no predictive value.

Table 5.22

<table>
<thead>
<tr>
<th></th>
<th>Model 5 – Pre-Training Community Distrust (Adjusted $R^2 = .011$)</th>
<th>Model 6 – Post-Training Community Distrust (Adjusted $R^2 = .018$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Region - Northeast</td>
<td>-.078</td>
<td>.142</td>
</tr>
<tr>
<td>5 Day Training</td>
<td>-.162</td>
<td>.148</td>
</tr>
</tbody>
</table>
The standardized betas in Model 5 confirm that each independent variable had a very small impact on the outcome variable, with the largest comparative effect coming from Ethnicity and having attended the 5-day training ($\beta = -.052$). At post-training (Model 6), this outcome shifted, with an Adjusted R-squared of .018 and both Education and Race becoming significant predictors. Having an Associate’s degree was predictive of higher levels of distrust by over half a point on the 10-point scale ($B = .624; p < .05$), compared to individuals with a high school diploma or GED. At post-training, individuals who identified as Black or African American had lower levels of distrust in their communities, compared to their White counterparts ($B = -.509; p < .05$). Beta weights in the post-training model suggest that having an Associate’s degree had the greatest impact on post-training attitudes of distrust, compared to the other independent variables ($\beta=.146$). Results from these models differ from those regarding the Trust outcome variable, suggesting that there are likely situational variables that inform these attitudes, but that trust and distrust, predicted by different demographics, are distinct attitudes, rather than two sides of the same metaphorical coin. However, the weak Cronbach’s alpha of both measures may be the primary factor in why these distinct, and somewhat contradictory results arose. Attempts to improve the models included removing the least significant variables, but these efforts resulted in

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>Standard Error</th>
<th>95% CI Low</th>
<th>95% CI High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender - Male</td>
<td>-.150</td>
<td>.175</td>
<td>-.858</td>
<td>.391</td>
</tr>
<tr>
<td>Race - Black</td>
<td>-.135</td>
<td>.201</td>
<td>-.668</td>
<td>.504</td>
</tr>
<tr>
<td>Race - Other</td>
<td>-.318</td>
<td>.275</td>
<td>-1.155</td>
<td>.248</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-.009</td>
<td>.179</td>
<td>-.049</td>
<td>.961</td>
</tr>
<tr>
<td>Education – Some</td>
<td>.116</td>
<td>.213</td>
<td>.547</td>
<td>.584</td>
</tr>
<tr>
<td>Education – Associate’s</td>
<td>-.002</td>
<td>.251</td>
<td>-.009</td>
<td>.993</td>
</tr>
<tr>
<td>Education – Bachelor’s</td>
<td>.113</td>
<td>.214</td>
<td>.530</td>
<td>.596</td>
</tr>
<tr>
<td>Education – Post</td>
<td>-.049</td>
<td>.272</td>
<td>-.179</td>
<td>.858</td>
</tr>
<tr>
<td>Yrs Employed</td>
<td>-.007</td>
<td>.008</td>
<td>-.793</td>
<td>.428</td>
</tr>
<tr>
<td>Primary Duties - Patrol</td>
<td>.018</td>
<td>.150</td>
<td>.119</td>
<td>.905</td>
</tr>
<tr>
<td>*p&lt;.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
no significant changes to the predictive nature of each individual variable, nor in the model's overall explained variance.

Models 7 and 8 (Table 5.23) reflect the pre- and post-training perceptions of officers as having shared values with the community they serve. Both training type and ethnicity were significant predictors of pre-training attitudes, with officers who signed up for 5-day training having significantly more positive attitudes about the extent to which their shared similar values with their communities ($B = .346; p < .05$), compared to individuals who only signed up for the 2-day program. Identifying as Hispanic/Latino(a) conversely resulted in scores about a half point lower on the 10-point scale ($B = -.555$) than their non-Hispanic peers ($p < .01$). Ethnicity in the partial model also had the greatest standardized effect ($\beta = -.142$).

### Table 5.23

**OLS Regression: Demographics and Shared Values**

<table>
<thead>
<tr>
<th></th>
<th>Model 7 – Pre-Training Shared Values ($Adjusted R^2 = .024$)</th>
<th>Model 8 – Post-Training Shared Values ($Adjusted R^2 = .051$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N=517$</td>
<td>$N=480$</td>
</tr>
<tr>
<td><strong>Region</strong> - Northeast</td>
<td>.100 .141 .713 .476 .034</td>
<td>.000 .143 -.001 .999 .000</td>
</tr>
<tr>
<td><strong>5 Day Training</strong></td>
<td>.346 .146 2.371 .018* .110</td>
<td>.491 .148 3.311 .001*** .158</td>
</tr>
<tr>
<td><strong>Gender - Male</strong></td>
<td>.151 .173 .871 .384 .039</td>
<td>.257 .173 1.485 .138 .068</td>
</tr>
<tr>
<td><strong>Race - Black</strong></td>
<td>.162 .199 .816 .415 .036</td>
<td>.380 .203 1.871 .062 .085</td>
</tr>
<tr>
<td><strong>Race - Other</strong></td>
<td>-.232 -.272 -.855 .393 -.038</td>
<td>-.006 .276 -.024 .981 -.001</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td>-.555 .177 -3.140 .002** -.142</td>
<td>-.228 .179 -1.275 .203 -.059</td>
</tr>
<tr>
<td><strong>Education – Associate’s</strong></td>
<td>.092 .248 .370 .711 .022</td>
<td>.048 .257 .188 .851 .012</td>
</tr>
<tr>
<td><strong>Education – Bachelor’s</strong></td>
<td>.328 .211 1.555 .121 .108</td>
<td>.462 .221 2.086 .038* .153</td>
</tr>
<tr>
<td><strong>Education – Post</strong></td>
<td>-.051 .268 -.190 .849 -.011</td>
<td>.758 .278 2.730 .007** .161</td>
</tr>
<tr>
<td><strong>Graduate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Yrs Employed</strong></td>
<td>-.007 .008 -.817 .414 -.038</td>
<td>.013 .008 1.513 .131 .073</td>
</tr>
<tr>
<td><strong>Primary Duties - Patrol</strong></td>
<td>.006 .148 .039 .969 .002</td>
<td>.175 .149 1.174 .241 .057</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01; ***p<.001

After training, ethnicity was no longer a significant predictor of shared values, but having attended 5-day training became a more significant predictor ($B = .491; p = .001$). In addition,
education became a significant predictor, with both individuals with a Bachelors (B = .462; p < .05) and those with post-graduate education (B = .758; p < .01), having markedly improved perceptions of their shared values with community members. In Model 8, post-graduate education also had the highest comparative effect on post-training attitudes (β = .161). These increased scores around education and training type suggest that these individuals may get more out of the training program than their peers in relation to understanding community perspectives and the shared values of citizens with their law enforcement officials, or that individuals with already high procedural justice attitudes self-select into the more comprehensive training. Efforts to alter the number of included variables in order to improve overall predictive effects did not result in significant changes. Diagnostics suggest that, similar to other models, no major statistical assumptions of the regression model were violated.

Lastly, Models 9 and 10 (Table 5.24) explore the impact of individual demographics on perceptions of use of force policies.

**Table 5.24**

*OLS Regression: Demographics and Use of Force*

<table>
<thead>
<tr>
<th></th>
<th>Model 9 – Pre-Training Use of Force (Adjusted $R^2 = .04$)</th>
<th>Model 10 – Post-Training Use of Force (Adjusted $R^2 = .057$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 517</td>
<td>N = 479</td>
</tr>
<tr>
<td>B</td>
<td>SE</td>
<td>t</td>
</tr>
<tr>
<td>Region - Northeast</td>
<td>-.089</td>
<td>.196</td>
</tr>
<tr>
<td>5 Day Training</td>
<td>-.726</td>
<td>.203</td>
</tr>
<tr>
<td>Gender - Male</td>
<td>-.523</td>
<td>.241</td>
</tr>
<tr>
<td>Race - Black</td>
<td>.124</td>
<td>.277</td>
</tr>
<tr>
<td>Race - Other</td>
<td>-.121</td>
<td>.378</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>.732</td>
<td>.246</td>
</tr>
<tr>
<td>Education – Some College</td>
<td>.043</td>
<td>.293</td>
</tr>
<tr>
<td>Education – Associate’s</td>
<td>.179</td>
<td>.346</td>
</tr>
<tr>
<td>Education – Bachelor’s</td>
<td>-.212</td>
<td>.294</td>
</tr>
<tr>
<td>Education – Post Graduate</td>
<td>-.187</td>
<td>.374</td>
</tr>
</tbody>
</table>
Both before and after training, having chosen to attend the 5-day training program was indicative of significantly lower scores on the 15-point composite scale, which expressed negative attitudes towards use of force restrictions. Before training, these officers scored about .726 points lower than their peers who took the 2-day training (p < .001). After training, this difference increased to .890 lower (p < .001). In both models, having attended the 5-day training had the largest standardized effect (β = -.164 and -.188, respectively) on use of force attitudes, perhaps reflecting the predispositions of individuals who sign up for the more comprehensive training program. For the first time across all regression models, gender also had a significant relationship with use of force attitudes. Men scored significantly lower on the use of force composite score both before (B = -.523; p < .05) and after training (B = -.643; p < .05). While this relationship is in the opposite direction that might be hypothesized based on prior literature (Schuck & Rabe-Hemp, 2005), the disproportionate number of men and women who attend NDTC’s training may influence these findings.

Ethnicity was also indicative of one’s use of force attitudes both before and after training. Before training, individuals who identified as Hispanic/Latino(a) scored .732 points higher than their non-Hispanic counterparts (p < .01), indicating more negative attitudes towards use of force reform and its harms. At post-training, this relationship remained, with Hispanic/Latino(a) trainees having a .708-point increase in their composite score (p < .01). These findings, along with other models that found Ethnicity to be a significant predictor, may have a similar stipulation as Gender, with the skew of this variable influencing the relationship. Adjusted R-squares of these models remained low but are slightly improved in comparison to previous
regressions. Removing extraneous variables from Models 9 and 10 did not result in any marked improvement to the model fit nor to the predictive nature of any of the individual variables.

**Moderation**

The purpose of these analyses was to allow for exploration of the moderating effects of training on the relationships between individual demographic variables and composite attitudes towards procedural justice concepts. Utilizing the equation from Paternoster and colleagues (1998), moderation effects were determined utilizing regression coefficients and standard errors of each independent variable. This allows for assessment of the extent of differences between pre- and post-training regression coefficients and how exposure to training may moderate the relationships. In the equation below, the resulting value represents the standardized Z score, which reflects how far from the true mean the change in coefficient value lies in a normal distribution.

\[
Z = \frac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}}
\]

Each resulting Z score was then evaluated for its statistical significance, which establishes whether the values of the regression coefficients between the pre- and post-test can be assumed to be moderated by exposure to training. Table 5.25 outlines the Z score for each demographic variable in relation to the attitudinal composite scores that represent the dependent variable in the OLS regression models presented above.

**Table 5.25**

*Moderation Analysis: Z-Scores of Pre-Post Moderation Training Effects*

<table>
<thead>
<tr>
<th></th>
<th>Procedural Justice</th>
<th>Community Trust</th>
<th>Community Distrust</th>
<th>Shared Values</th>
<th>Use of Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region - Northeast</td>
<td>-0.9635</td>
<td>0.1415</td>
<td>0.2179</td>
<td>0.4980</td>
<td>0.9086</td>
</tr>
<tr>
<td>5 Day Training</td>
<td>0.0526</td>
<td>-0.4199</td>
<td>-0.0649</td>
<td>-0.6975</td>
<td>0.5412</td>
</tr>
<tr>
<td>Gender - Male</td>
<td>0.1940</td>
<td>0.0855</td>
<td>0.7697</td>
<td>-0.4333</td>
<td>0.3357</td>
</tr>
</tbody>
</table>
Results of these analyses suggest very few significant moderation effects. In all, training moderated the relationship between Years Employed at Current Agency and Procedural Justice Attitudes and having a Post-Graduate degree with Shared Values (p<.05). A few other relationships approach significance, such as Years Employed with both Community Trust and Shared Values, and having an Associate’s degree with Community Distrust.

These significant findings align with the findings in the individual regression models. For example, Years at Current Agency negatively predicted pre-training procedural justice attitudes (B=-0.099) and was highly significant in that model (p<.01). However, in the post-training model, the relationship was no longer significant (p=.401) and was predictive in the opposite direction (B=0.024). As such, it is logical that this significant change over time would be the result of training exposure and aligns with the aforementioned hypothesis that participation in NDTC’s program may alleviate some of the negative perceptions accrued over time as a law enforcement officer (Campeau, 2019; Carrillo & Gromb, 2007). Similarly, having a post-graduate degree did not significantly inform pre-training perceptions of having shared values with one’s community (B=-.051; p=.849), but it had a significantly positive effect on post-training attitudes (B=.758; p<.01). This finding suggests that training has a greater impact on more highly educated individuals and is most effective on participants who have already had significant classroom andragogical learning exposure.
While these findings suggest relatively modest moderating effects of training, they do align closely with prior literature (Chapman, 2012; Paoline & Terrill, 2007; Stickle, 2016) and may help inform how NDTC approaches future curriculum development. However, the low Cronbach’s alpha of most of the composite attitudinal measures (except Procedural Justice) indicate that caution should be utilized in interpreting the overall ability of these items to reflect specific perceptions of these concepts. In addition, the limitations of utilizing this equation on a dependent sample without an independent comparison group allows for limited exploration of this moderating relationship. Further discussion of these limitations and considerations for future research can be found in the Discussion Chapter.
CHAPTER 6: QUALITATIVE RESULTS

DEFENSIVE OTHERING IN THE FACE OF REFORM

In addition to the quantitative survey results explored in the prior chapter, a large portion of the current project included semi-structured interviews with participants and ethnographic observations of the training offered in Region 7 (Northeast). The following two chapters explore the results from a total of 16 semi-structured interviews and approximately 40 hours of training observations. Previous police training literature is limited in the extent to which it incorporates qualitative data. As such, the current work helps unearth the potential personal and cultural barriers that may inform the uptake and sustainability of new training and de-escalation strategies. Utilizing a flexible coding approach (Deterding & Waters, 2021), this chapter explores the ways in which officers attempt to distance themselves from high profiles instances of misconduct and deny the need for widespread reform. In doing so, officers are able to provide praise for training and some changes to officer behaviors, without implying that there is legitimacy behind concerns that officers do not already utilize best practices.

Officers are faced with significant public outcry and demands for reform across the profession in the aftermath of high-profile miscarriages of justice (Associated Press, 2016; Hill et al., 2020; Karnowski & Slater, 2023). In response to these criticisms, police often engage in coping mechanisms that help them distance themselves from the “bad apples” (Brecher, 2014; Gottschalk et al., 2012; Ivkovic, 2009; O’Connor, 2005) within the profession, or they engage in the strategy of defensive othering, an attempt to distance oneself from the stigma associated with specific group membership (Schwalbe et al., 2000). Creating this degree of separation from others to avoid the stigma associated with police in-group status, particularly the perception of American policing as a racist or oppressive institution, may help alleviate the emotional and
cognitive burdens associated with group membership during a time of great sociopolitical reckoning. These cognitive strategies then allow officers to deny that they are part of a systemic problem or reject the notion of a larger, racist system entirely.

Interview participants in the current study postured against negative public narratives by distancing themselves, generationally or geographically, from the problems within policing, portraying these issues as isolated incidents. This allows them to maintain their resistance to change and delegitimize arguments for reform. In utilizing an “us versus them” mentality (Doherty, 2016; Sierra-Arevalo, 2021; Waddington, 1999; Wolfe et al., 2024) even within police group membership and engagement in defensive othering (Schwalbe et al., 2000), officers can reinforce the notion of a few bad apples and/or deny the need for systematic change. These consistent themes represent efforts to remove oneself, and the other officers they most identify with, from sociopolitical narratives and engage in avoidance of systemic oppression at the hands of the criminal legal system. While resistance to change is well-documented in the policing profession (Duxbury et al., 2018; Lingamneni, 1979; Mastrofski & Willis, 2010; Schafer & Varano, 2017), defensive othering and distancing from negative perceptions within this context is far less developed. The current qualitative findings further the scholastic understanding of how resistance within police unfolds, as well as the meaning of this resistance in the identities of officers as public servants. The current analysis suggests that this resistance is rooted in the need to posture against attacks to one’s policing identity and reaffirms one’s denial that high-profile instances of misconduct are representative of larger problems. In these narratives, the data not only confirms the existence of this resistance within policing but also its use as a justification for one’s own behaviors and reaffirmation of self-concepts as “good” officers.
Good vs. Bad Apples: Resisting Structural Issues in Policing

Distancing of the self or in-groups from the problem of police misconduct represents the primary way in which officers utilize defensive othering to reinforce their own emotional well-being and deny the existence of a larger, systemic problem. Contrary to prior literature regarding the “blue wall of silence” (Brown, 2016; Skolnick, 2002; Westmarland & Conway, 2020) that so often defines the delineation of police as a cohesive unit separate from the public, the current research finds that, when necessary, officers are willing to narrow their in-group status to allow for recognition of problematic officers while maintaining that they are not part of this entity. Officers, in arguing that they personally do not engage in misconduct, nor see this misconduct around them, can easily defend against calls for change by pinpointing spaces within the profession where these issues are nonexistent.

In particular, interview participants expressed a lack of concern over misconduct or excessive force in their spaces by either emphasizing that these issues are an individualized problem or by pointing to cultural differences in the agencies or geographical areas of the United States that allow this type of biased policing to take place. Using an adapted form of the “us versus them” mentality, participants separated themselves, geographically or generationally, from injustice, which potentially allows for the continued silencing of calls for widespread, institutional change. Participants engaged in this level of defensive posturing with all topics related to change/reform, the actions of officers during calls for service, and overall perceptions and attitudes towards procedural justice/community policing issues.

Officers often create this degree of separation and status as “other” from the problematic conduct of others by reinforcing that any instance of injustice is a singular problem. Rather than denying the need for reform entirely, many participants acknowledged that change may be
needed for some individuals but simultaneously cautioned that systemic change would harm those for whom these concerns do not apply. For example, when asked if her department was having conversations about public calls for change and high-profile instances of misconduct, such as the death of George Floyd, Amanda, a patrol officer, clarified, “I personally do that a lot, because I'm an Eboard rep. I need people to understand like, this is the climate guys. Like just change the way you're doing things because we don't need complaints coming in every day.” In this narrative, these conversations happen only because she herself prompts them and encourages the other individual officers who receive complaints to do better.

In addition, when asked about her state’s recent comprehensive police reform bill, Amanda emphasized, “I personally don’t have a problem with the reform bill…Like I think it’s fine to have a decertification.” Despite this verbal support, she then described her concerns about how the bill’s decertification policy is harming officers’ ability to engage in proactive policing: “I think the reform bill just makes people back off a little bit on their jobs. So now, you know with the reform bill, you know, all somebody has to do is threaten that [racial profiling] or make a complaint against it. And even if you're not founded for that, if you get a pattern of those complaints, you can be decertified. And it stays with you your entire career.” In contradicting her own position as in favor of the bill, she is able to both acknowledge that some level of change may be necessary but also that her and her colleagues’ behaviors would be incorrectly misconstrued as unjust if such policy was invoked against them. This logic reinforces that misconduct is an individual-level problem, and her efforts to delineate herself from that type of action should be enough to protect her from these accusations. Amanda exemplifies her own role in informing better policing among individual officers who may have received complaints, reaffirming the individual level flaws of these bad apples. Utilizing this strategy and highlighting
herself as a beacon of hope reinforces that systemic change in policy would harm good officers like her.

Similarly, Julia, a training sergeant from the Midwest, had a seemingly positive attitude towards reform efforts. When asked specifically about the concept of procedural justice and its increasing importance in everyday policing practices, she argued that she has long been on the forefront of this movement:

>You know, I was way ahead of the curve ball. I was law enforcement in, you know, started in ’95 as an auxiliary officer, went to armed in ’99. And it immediately was, you know, ‘Oh, she's the soft and fuzzy officer’, but all the stuff that I was doing in ’99 is all the stuff officers are required to do now. I was way ahead of that ball. And now that they're having to do it, they're all looking at me, like, you know, ‘How did you know that was gonna be-?’ It's like, because that's the way it should have always been.

Julia expresses that she has never been an officer who has engaged in any level of misconduct and has long held the values of procedural justice and community policing. Highlighting this personal long-standing perspective not only allows Julia to engage in defensive othering against those who have not embraced such beliefs but also reaffirms the broader position that there are plenty of officers, such as herself, who have been promoting proper policing and equity for decades. For Julia, widespread reform or policy-level change is unnecessary because of these efforts by her and other officers to police correctly and mitigate the issues created by the individuals who engage in misconduct. Using this logic, participants can further the narrative that while some officers may not embrace these practices, they are just the bad apples, not representatives of a spoiled bunch.

Other officers applied this individualized, “bad apples” defense when considering the extent to which they believed they could ever be involved in an instance of misconduct. In adamantly denying this possibility, officers can engage in othering of those who have been
caught engaging in violence or racism against community members and reinforce the notion that this is an isolated issue. With 23 years-experience, Derek, a lieutenant, argued in favor of this “rotten apples” philosophy, “we're addressing that minority of officers that have made us look bad…Like, if I knew tomorrow, some guy was hurting somebody, and I knew he was, I would have stopped them already.” For Derek there is no question that he would ever allow misconduct to happen in his department. Again, this posturing as immune to bystander effects (Darley & Latane, 1968; Fischer et al., 2011; Latane & Darley, 1970), or the hierarchical nature of police organizations allows him to deny that this level of injustice is a pervasive problem or that he should be associated with any officers who have acted inappropriately.

Two other participants from the Northeast went so far as to invoke George Floyd’s death as an example of something they would never have allowed. Chris, a criminal investigator who no longer works in patrol, argued “Unfortunately, [George Floyd] died but it's not to excuse the actions of those officers. Even the ones that were standing by, they knew what was happening. They're saying that they're doing crowd control. Listen, I was a patrolman for almost 10 years, that would not have happened.” Similarly, Nick, a lieutenant, stated, “But after George [Floyd] what I said was, ‘Well, when I was a new officer, guess what? If I saw that, I would have stopped him.’ Yeah, I would have. Yeah, I would have.”

Nick’s convictions about his personal integrity as an officer not only allow him to indirectly reinforce the bad apples narrative but also implies that Floyd would not have died if he had been present. This individual level focus on how he would have acted differently than the officers who were there reinforces that this is not a systemic problem – the fact that officers such as himself would have prevented Chauvin’s actions reaffirms that it just so happened to be individually corrupt officers at the scene. By creating this distance between himself and the
officers who succumbed to the bystander effect, Nick can deny the need for widespread change and ignore the social and structural factors that may have contributed to the outcome. It is known to the public that Officer Chauvin had previously been involved in several excessive force complaints over his law enforcement career (Andrew, 2021; Hawkins, 2020; PBS News Hour, 2021) and was supervising new officers at the time of Floyd’s death. Despite this public knowledge, it seems that officers such as Nick can deny the pervasiveness of these problems, or the fact that other “good” officers allowed such misconduct to persist. This strategy of considering oneself as exempt from bystander effects and reinforcing the notion that they would have prevented Floyd’s death allows participants to reinforce the individualized nature of this misconduct and the departmental cultures that allow “bad” officers like Chauvin to remain on the force.

While this level of posturing may have also served as a form of presentation, it primarily supports participants’ overall arguments that such injustice is not a systemic problem. Rather, participants assert a two-fold explanation of why reform is unnecessary: good officers can facilitate the necessary change in others that may be needed, and having already always engaged in proper behaviors, they serve as proof that policing as a whole is not flawed. Utilizing these two sides of the same “bad apples” argument, participants further their own self-concept as a good police officer and their subsequent denial that they or their department need formalized reforms.

If several officers can all agree that such blatant misconduct could never happen in their presence, it denies the idea that the structure of policing itself allows events such as Floyd’s murder. In this line of defense, participants create a narrative that allows them to distance themselves as independent agents wholly from the very few bad apples who may, unfortunately,
create a bad image for an otherwise just and fair profession. They can publicly condemn the actions of those involved officers while protecting themselves from such biased behaviors and maintaining the notion that policing as an institution is not the issue. When it is not possible to protect policing in its entirety, officers turn to strategies that allow them to isolate problematic policing through claims that these issues are location specific or generational.

**Posturing Through Location/Geography**

Another strategy to downplay institutional or structural flaws in policing is to expand the bad apples argument to include not only bad individual officers but also bad departmental or regional subcultures that foster bias and misconduct. In allowing this broadening of their argument, but still specifying the specific cultural conditions in which this misconduct exists, officers are able to deny the systemic nature of the problem and secure their self-concept as part of a proper policing system. While many of the interviewed participants explored the individualized nature of misconduct - the bad apples argument – others posited that while a larger problem may exist, it is isolated to specific subgroups of the institution, particularly in spaces distinct from themselves.

Specifically, participants reinforced this defensive othering, not by reinforcing an individualized bad apples argument, but rather by creating geographical gaps (identifying bad regions and bad departments) in the policing profession to help them deny a widespread problem, and instead create distance from the smaller populations within policing that are of greatest concern. This argument was furthered by participants particularly from the Northeast Region, who argued a literal distance from a culture that would allow misconduct. In invoking stereotypes and longstanding perceptions of the Southern United States as engaging in more overt racism, these participants argued that even if such a cultural problem exists there, such
behaviors are not reinforced in the North, therefore nullifying the argument that these issues are pervasive across policing. This posturing strategy creates a measurable, concrete distance between the just and unjust officers, not only protecting the individual participants who declare this difference but also separating their entire agency and neighboring organizations as distinct from those that succumb to the use of bias and excessive force.

Officers across New England invoked their physical distance from some of the most recent high-profile instances of police misconduct that have occurred elsewhere. James, a sergeant for a large-sized local agency, argued that the type of misconduct that led to the death of George Floyd simply isn’t present in the Northeast: “I'm not saying that we don't have police misconduct. Absolutely we do. We do, we did, and we always will. Yeah, because people are people. But the George Floyd incident was the farthest thing from what was going on in the State of Connecticut.”

In this argument, there is a very clear distinction for James that location can serve as a prominent distancing strategy as it utilizes geographical distance as a proxy for the broader cultural differences between the Northeast and other regions of the country where events like Floyd's death can take place. This strategy separates him and his fellow Connecticut officers not only from the actions of other officers involved in the incident, but also from the larger cultural issues that their departments clearly have in engaging properly with their communities. However, recent instances of misconduct in his state, such as the 2020 fatal shooting of Mubarak Soulemane (Ingalls et al., 2024), a former officer currently being charged with more than 40 commercial burglaries during his employ (Austin, 2023), and the firing of two officers whose negligence led to the paralysis of a man in custody (Martinez & McIntosh, 2023) have all brought national attention to the misconduct that occurs even in these Northern states, including
Connecticut. Whether or not he is aware of these examples, James is still able to separate these actions from the broader culture of bias that allows more egregious excessive force to occur elsewhere in the U.S.

Other participants who utilized this defensive othering through distancing also reinforced the stereotype that racism is a uniquely “Southern” problem and occurs at a cultural or institutional level only in these spaces. When discussing recent state-level changes to policing, John, a local patrol officer argued,

I think that the police accountability bill isn't going to do much here...I have heard some pretty bad stories of some like Podunk towns down South, and they, you know, don’t do things the right way, like, that's where those [bills] would have the biggest impact. I think we're where at, truly, that doesn't happen. And if it does, it's like an extraordinarily low percentage. It isn’t gonna have a big impact here. I think we already do pretty much a very good job in the tri-state area around here.

The way in which John invokes the imagery of the “podunk towns down South” helps differentiate the community he serves from those in which racist policing occurs. In using the geographical distancing strategy, John not only argues that it is a uniquely Southern problem, but also denies the need for reform in the North where they already serve as a beacon of proper policing practices. Through this narrative, John resists change by acknowledging a cultural difference that allows misconduct to thrive in the South while also refuting that such work is necessary where he serves. If his agency and geographic region have already implemented improvements, there is no need for further formal reform. This strategy ties to the individualized arguments made earlier in the chapter that these individual “good” officers can independently manage to resolve any issues.

Nick, a training lieutenant, makes an almost identical argument, suggesting that there is no solution for this type of geographic flaw, “Like you can't control the bum town Mississippi
Police Department. Yeah, they're always going to be the bum town, Mississippi police
department, they're always going to hire $3-an-hour idiots. Yeah, can't fix them…but I know up
in the northeast, we've always been pretty good at this.” In a slight pivot from his former claim
that it was bad apples who engaged in misconduct, Nick invokes the geographical argument to
separate his whole agency from those whose broader culture may allow for misconduct. He
creates space for acknowledging that some departments, rather than just individuals, might have
organizational issues with misconduct but separates his entire region from this possibility.

Depending on the call for change or reform effort, participants like Nick can use
strategies to distance themselves from injustice and reinforce their beliefs that these issues do not
apply to them. In invoking the geographical distance and the notion that the culture of
misconduct is a uniquely Southern problem, these officers are able to explain instances of
misconduct that suggest the work of a bad apple while also accounting for the broader cultural
biases they believe inform the actions of police in other areas of the United States. Nick and John
also question the need for reform through geographic posturing when they claim that reforms
will never change policing in the South (where reform is needed), and that because the northeast
is already performing well, reform is not necessary. Through this defensive othering (Schwalbe
et al., 2000), officers can control the narratives around misconduct, reaffirm their exclusion from
this population of biased police, and cognitively and emotionally grapple with widespread calls
for change.

Participants from Northeast states were also seemingly able to ignore local reported
instances of misconduct such as the recent decertification of five MA officers (Katcher, 2023), a
federal investigation into the misuse of CT DUI checkpoint funds (Cummings & Eaton, 2024), a
CDL bribery scheme across the Massachusetts State Police (Kath, 2024), and the suspension of a
Boston PD captain (Cawley, 2023), all in an effort to maintain that there is geographical distance between themselves and injustice. Despite clear evidence that misconduct does occur in their area, participants utilized this regional distancing to separate themselves from the concern over policing and deny a broader systemic problem. In posturing as distinctly separate from the culture of spaces where racism and bias thrive, which to these officers occurs solely in the south, participants removed themselves from social narratives about the flaws of policing, and subsequently, denied that it is a national problem. Even for officers such as James who acknowledge misconduct may happen in the Northeast, they are still able to justify that the severity of this problem is greater in the South, where police culture may be more willing to accept bias in their practices. This allows them to justify their resistance to change and reform.

**Reform as Dangerous and Harmful**

Other participants expressed feelings of harm related to the choices of these “bad apples” or biased agencies in other parts of the nation. Several interviewees reported feeling that the changes being made to the way they do policing, either through legislative action or public outcry, were simply the consequences of misplaced fear that such misconduct could spread to the North. However, many of these officers reaffirmed that such a thing could never happen. Derek, who works closely with community members as his police union’s representative, stated simply, “…the senators and stuff, they said that the State feels if they don't react to what happened to George Floyd, we might have riots here. But I'm like, so that's not the reason to do something.”

Derek points out that it feels particularly misguided to enact change in places that do not need it, as the result of issues in other states. Jose, a Massachusetts sergeant, agreed that “when you see something like that happen all the way out west, or Midwest…. a lot of what's been affected across the board is from is from like, the small towns, right, the small towns? It's
because of the experience and how, how serious are they taking the training? But on the East Coast, I've always felt that we were the model, you know?” Jose, specifically explaining the Police Accountability Bill passed in his state in 2020 (S.2693), argues that such reform efforts are unnecessary and, in fact, superfluous to what they are already doing as this “model” of policing practices: “In the state of Mass, you know, they kind of rushed to have legislation passed. Some of the verbiage from the state...when you really look at the language, it's nothing new that we've already been doing and doing. Yeah, it's just put a label on it.” For Jose, and other officers who established similar narratives, these efforts towards reform do not represent a true need but rather a performative measure that will not change the culture of a police force that does not need changing and has not succumbed to the biased culture festering in Southern agencies.

For these officers, these legislative efforts, mimicked in other New England states such as Connecticut (HB-6004), not only feel illogical, but personal. In having successfully distanced themselves from the individual officers who engage in misconduct and the broader geographical/organizational cultures that reinforce them, these reforms become deeply personal to officers who deny a systematic need for reform. In being told that they need this change, it makes these officers who identify as “good” officers in “good departments” question the identity they have constructed.

For example, Derek, who has been on the force for 23 years, highlighted the ways legislation has contributed to changes in his self-image, stating, “I've been called a racist more than ever since all these laws passed. And I'm not. I'm not a racist, but at the end of the day, you know, obviously when someone calls you a racist, it makes you feel like oh, it makes you second guess everything.” Despite believing he is a good officer and “not a racist,” the new narratives of all law enforcement as systemically racist has dismantled his argument that this is an
individualized problem that does not apply to him. For many participants, these widespread changes conflict with their defensive narratives and cause deeply emotional responses for the officers who feel they are being unjustly targeted. John, a patrol officer, feels like the legislation is unfairly punitive, as he believes he and his peers' police in just and equitable ways:

We had, like, a pretty big problem with it [legislation], because I think we all hold ourselves to a very high standard, I do have to say. Like everyone's college educated or has a bunch of military experience. I truly do work with a good group of people with high personal moral standards, right? Like I, I truly think that across the board. So like, when all of these things came hammering down on us from something that happened in a different state, I think we're all pretty upset about it, because I think we all were never policing with biases. We were all just policing, you know, based on what is right and wrong, what the law is, and treating people with the respect that they deserve to be treated with.

John’s beliefs about his department and the ways in which they approach their work not only highlight this denial of bias in policing as a systemic, national problem but also the very sharp contrasts officers can make between themselves and others to reinforce this denial. In being told they need this type of policy-level change across the board, these officers feel they are being attacked or incorrectly labeled as one of the bad apples. Their morality and sense of self as one of the good officers – folks who already engage in proper policing – is then under attack by these calls for widespread change and as such, they must defend against these calls for the preservation of their identity.

This strategy helps these officers create a very strong argument against calls for reform by showing a literal degree of separation between themselves, who police ethically, and officers from other areas of the United States (especially the South), who do not. While bad apples may exist everywhere, some participants argue, this remains an individualized problem in the Northeast and a symptom of a larger cultural problem anywhere else. While officers from
Southern states were not interviewed as part of this project, it is significant that all these geographical strategies come from officers in the Northeast, and not from officers from the Central/Midwest region. Whether this displays a joint perspective of people raised in the Northeast, or a piece of the hidden curriculum (Chappell & Lanza-Kaduce, 2010; Kathuli & Mathenge, 2020) of police agencies and academies in the North, remains to be seen.

**Drawing Generational Lines**

Participants also engaged in denial of their role in, or even existence of, a systemic policing problem through the separation of themselves and their generation of officers from others. This strategy was pervasive and spanned across years on the force and chronological age, with officers of all levels of experience utilizing this narrative. This generational argument helped officers engage in defensive othering by separating them from other cohorts of officers who they frame as more prone to misconduct.

For participants who utilized this strategy, they were able to create this distinction regardless of their own tenure so long as they could compare their generation to those who had either more or less time on the force, and therefore, perceived them to have unique weaknesses related to their ability to police. The use of this narrative across generations is a significant indicator of the willingness with which officers will identify any opportunity to distance themselves from the bad apples. This supports the argument that this strategy is not actually about geographical or generational distance, but rather the need for officers to preserve their own self-concept as a good officer by creating distance in any way necessary from the bad apples and bad departments that validate arguments for systemic change. Within this context, officers utilize additional strategies related to their geographical distancing argument: citing subgroups of police
that may have a unique culture that reinforces the actions of bad apples and misconduct more broadly without diffusion into other generations.

Officers who have had a significant career also can differentiate themselves from older officers. These participants contrasted their generation from the generation prior to highlight how successful their agency has already been in implementing significant change. For example, Nick, a second-generation police officer with 26 years on the force, highlighted the rough-and-tough culture of old school policing and how his organization has shifted since:

I'm a second-generation officer, my father's era. Those guys, you know, they would take you in the back door of the old station and if you gave them a hard time they throw you down the stairs. Right? That's what they did. That's wrong. But they did stuff like that… Like, that's how crazy it was here… Then as we got more professional, so when I came on, that's when we had a big shift in the mindset and the culture and the training.

Through this explanation of the physical nature of policing a generation before him, even Nick, who is considered a tenured officer, can still deny that his generation is the barrier to further reform. In making this comparison to a much more traditional policing culture, Nick is able to deny the role his own generation may play in perpetuating the systemic problems within policing organizations and can easily distance himself from the more overt forms of abuse that once pervaded the job. In this way, Nick is able to reinforce the two primary but contradictory arguments about misconduct in policing – if people currently engage in misconduct, they are simply bad apples, but the culture of specific subgroups can very clearly play a role in the accepted behaviors of a police force.

John (5.5 years on force) and Luke (19 years on force) both reinforced this narrative, arguing that older officers are the only ones with a real resistance to reform efforts. John talked about the “salty old road dogs” who struggle to incorporate new, procedurally just practices into
their daily operations, while Luke argued that you simply “can’t teach an old dog new tricks.”

Jose (22 years on force) similarly argued that some of the older officers who helped bring him up through the ranks became jaded through public service and turn in to “just kind of grouchy guys [who] became very complacent after seven, eight years on the job.”

In these narratives, officers across the age/experience spectrum can differentiate themselves from older generations and argue that so long as things are better than they once were, there is no need for serious concern about the state of policing as a whole. For those participants like Nick, who shared these stories of his father’s era and are old enough to remember the more traditional policing culture, they are able to distance themselves from that generation of officers and deny that such pervasive problems still exist. Jose, who worried about those “grouchy guys,” acknowledged the importance of this degree of separation, having focused on this generational culture since the beginning of his tenure:

I've been on long enough to know that.... I would say, that's kind of like the key factor in, in any type of police department is guys who are willing to kind of be selfless, you know, and just kind of mentor the young guys, and not allow the institutional knowledge to fall by the wayside. And, you know, I had that, I think, you know, I've just been linked up with the right guys. And they, and they led me in the right way. And then I knew what to stay away from too…

For Jose, there are clear differences in how some of the older officers brought in new ones. In his Massachusetts-based agency, he was able to both acknowledge concerns about older folks while simultaneously exploring the role of culture in enforcing proper practices. Here, the argument poses the opposite perspective as the stereotypical attitudes shared about the south – the culture of policing in the Northeast helps reinforce positive policing while some generational barriers and bad apples who learned the old ways are the individualized problem. This strategy allows them to reinforce the idea of themselves, their peers, and their departments as the good ones who
do not need this type of widespread reform by utilizing whatever distancing means necessary. In attributing flawed policing to the actions of an older generation of policing, these participants hint at the success of individualized approaches to proper policing and the importance of good mentors and singular officers who lead by example. Even in arguing for generational differences, officers can acknowledge both the individual practices and cultural atmosphere of agencies in informing instances of misconduct. This maintains the otherness of older “grumpy” and “salty” officers who can be identified as the root cause of remaining inappropriate behaviors.

Other participants argued that the younger generations of officers are the reason why the public is increasingly concerned about how officers engage with their communities. For several officers, this belief was rooted in broader generational differences, such as the impact of technology on communication skills, that uniquely affect this subgroup of officers. John, who had also expressed his concern over the “old salty road dogs,” conversely also separates himself from the younger generation who struggles to relate to others: “especially with this generation, you know the young generation coming up. I keep hearing communication issues, communication issues. That's the biggest, number one thing that we hear with people coming out of FTO [field training].” A single officer's ability to differentiate himself from both older and younger officers to create distance from bad officers clearly exemplifies this strategy of denying a systemic problem. In having a distinct separation from the younger patrolmen who cannot adequately communicate with their community, John is able to reiterate his lack of involvement in any poor policing practices and reinforce the notion that his specific generational culture does not contribute to these problems.
Derek, also concerned with communication skills among younger folks, argues that officers who came up during COVID need more support. When asked about this concern, he clarified,

They're used to communicating by their phone and their email. And that face-to-face interaction that police work is, you know, it's not their strong suit always... There's a bit of a disconnect. And like, you know, they're all sort of staring at their phone. I'm like, 'I'm talking to you, like look up.' You know? They'd rather text me on the road with a question, than call me. I'm like - it's just, it's different. And I don't want to sound like I'm an eighty-year-old man, because I'm not. But it's obviously our job. Our strong suit is face-to-face, right?

Derek’s concern with younger participants suggests that some officers’ inability to engage appropriately with citizens may be rooted in this generational flaw and later represents a cultural subgroup responsible for poor policing. As such, his generation, which does not have this same communicative barrier, should not be held responsible for the poor practices of others. Nick, with 26 years’ experience, engages in a nearly identical tactic, having previously argued that the old way of policing was both outdated and dangerous, and then subsequently expressing distain for new officers:

Younger generations just aren't as good at talking to people. We're finding that the people we're hiring don't know how to talk to people. Like, nevermind de-escalation, right, just carrying on a nice conversation. They're just not as good at it. And they need some more active participation... That's the culture, although we're getting people to who don't get the paramilitary thing.

For Nick to separate himself from the old-school, physical form of policing and then express distain for younger officers who do not appreciate the paramilitary model reflects this need to separate oneself from a seemingly cross-generational problem and deny the systemic nature of these concerns. In this quote, Nick goes so far as to say that de-escalation strategies central to NDTC’s program cannot be learned or utilized by officers who fail so completely at far more
basic conversation skills. For Nick and others like him, the logic follows that if the issue is with younger or older officers (or both), then it is still plausible that such behavioral concerns do not exist with oneself or within one’s specific cohort, negating the argument that these problems are systemic.

Whether these participants separated themselves from officers with more or less experience than themselves was secondary to the importance of creating a degree of separation itself. This strategy allowed officers to create a demarcation line between their own just policing practices and the injustices of others. By making the separation, they are subsequently able to argue that if these instances of misconduct cannot be found among all types of officers, then it is not the systemic problem the public has been made to believe exists. Such arguments allow these officers to confirm their own pre-existing beliefs that reform efforts that have affected them personally are both punitive and unnecessary.

The contradictory nature of these arguments – both that you can’t teach an old dog new tricks and that the newer generations are hopeless – furthers the analysis about the utility of these strategies. In suggesting that both young and old officers can’t be taught, officers unintentionally destabilize the institution. As such, it is not truly that they believe that all generations of law enforcement are a lost cause, but rather than officers do whatever is necessary to 1) justify why some issues exist within the profession while still denying a systemic problem, and 2) distance themselves from these issues by creating individual or cultural explanations for these problems that exclude them from the narrative entirely. Both strategies allow these officers to resist systemic reform and distance themselves from the undeniable instances of misconduct that they cannot otherwise explain.
These strategies of creating both individual and cultural gaps between themselves and others allows officers to reinforce the notions that only bad apples or spaces in which there are broader social flaws (i.e., the “South”) contribute to instances of misconduct within the profession. Engaging in this defensive othering (Schwalbe et al., 2000) not only permits these officers to deny any personal role in malpractice but also reaffirms their belief that this is not a systemic problem. This systematic avoidance also helps participants deny the need for widespread reform and negate the public calls for change.

**Avoidance of Systemic Change**

In taking these stances on misconduct and injustices in the policing profession (i.e., “bad apples” or geographical differences), participants can resist the need for personal or agency-level change. Creating defenses that deny or avoid the possibility of a larger, systemic problem gives participants ammunition against politicians, academics, and the general public who have recently demanded significant reform across the United States. Following the death of George Floyd in 2020, calls for reform such as the end of qualified immunity, decertification processes, and increased hiring and training standards (Harris & Devereaux, 2020; IADLEST, 2021; McConville & Premkumar, 2022) informed the passage of legislation in several states, against which police often expressed significant distain. Officers often engage in this resistance by highlighting the potential dangers of reform efforts or legal changes that inform how they can or cannot practice policing. In focusing on the risk to officers themselves, rather than on the risks to citizens that have prompted this change, participants were able to further deny and distance themselves from the fact that these reforms may be necessary or do anything to further policing more broadly. Officers repeatedly focused on how changes to the law are “taking the teeth” out
of their power, creating low morale, and may be leading to significant physical or economic injury to officers who are simply doing their job.

Most prominently, officers expressed resistance to formal change through state-wide legislation because of the potential consequences related to overall agency culture or individual-level outcomes. When asked about his organization’s climate, Leo, a training lieutenant, argued that “Climate now is difficult – not because of leadership but state legislation and programs/policies that make my job more difficult and [there’s] nothing we can do about it.” It is not organizational administration that has informed changes to this job, but rather the choices of outsiders that have instilled a sense of fear or hesitation in officers. A patrol officer, John, reaffirmed this logic, arguing that by making these seemingly unnecessary changes, it is creating an unmotivated workforce:

It takes motivation away from the officers, and then you start taking the teeth out of the laws. And so much so that most of my arrests aren't even sticking. Or you know, this guy is already backed out of the streets like after just one court date, and you start seeing that your efforts are kind of for nought. And, you know, it, it's hard to stay motivated in that environment.

This new environment, John and others argue, creates the opportunity for risk in which officers may hesitate to do their jobs because of these new reforms. With the belief that misconduct is not pervasive within the profession, these new policies seemingly demotivate the officers who do not personally need such drastic change. These narratives emphasize that changes in legislation that have limited police practices, such as pursuits and consent searches in John’s state of Connecticut, have caused officers to pull back and even fear engaging in proactive policing. In sharing these perspectives, the officers are not acknowledging any real need for these legislative changes, but simply arguing that it will only cause undue harm and reduce the power of officers to initiate citizen contact. In doing so, the officers deny the public argument that there is a true
need for these changes or that officers in their shared spaces were possibly using these practices incorrectly in the first place.

Peter, a retired detective, is able to see this retrospectively when looking at current law enforcement officers, stating “You almost have a segment of hands off. Because of, you know, the accountability stuff. You've created, I don't want to say fear, but that they're like, you know, I'm not doing that. I don't want to lose my house. I don't want to lose - Yeah, I don't want to get sued.” Active lieutenant Derek, concurred, emphasizing “the pursuit thing has tied our hands, and you know, our use of force is tied our hands a little bit…Consent was huge. Because you know, we're not beating him for it. We always say, ‘Hey, you mind if I have a look at your car?’ They can say yes, they can say no. But now even if somebody wanted to give consent, I can't.” For Derek, who also serves in Connecticut, the changes to consent searches during motor vehicle stops that now limit how/when officers may ask for a consent search places additional burdens on him and other officers who were policing correctly. The changes needed for a few bad apples or the agencies with cultural flaws are being implemented across the board, and participants clearly expressed that such sweeping efforts are not only unnecessary, but actually prevent proper, proactive policing.

Similarly, some officers acknowledged that these policies surpass the realm of necessity and are instead likely to cause significant physical harm to officers. Julia, a training sergeant, argued that when legislators and academics create these policies “without getting in with police officers” it is likely “to fail or cause officers to get hurt or cause entire communities to suffer.” These policies do not, in the opinions of these participants, resolve an injustice, but rather over-correct police practices after the actions of a few “rotten apples” (Peter). In reaffirming the excessive nature of these reform efforts, participants doubled down on their defensive othering
and utilized their defensive strategies to distance themselves from the need for change. One such example comes from an officer in Massachusetts, where a state-wide reform bill recently banned all uses of chokehold restraints among police:

…In Massachusetts, they said ‘we banned all chokeholds.’ Well, we had banned chokeholds a long time ago. Yeah, you don't do chokeholds unless it's a life or death situation. Well, the way they wrote the law now, if someone is on top of me and they're stabbing me, and I reach up and I choke them to keep myself from being murdered, I can be fired. Now, that's stupid. That's not the real world.

For Nick, a lieutenant, chokeholds were already being used appropriately by officers (only in a “life or death situation”) and therefore, additional reform was unnecessary. He then goes so far as to say that this new doubling-down on official chokehold policy will put the careers and lives of Massachusetts officers at risk. This narrative suggests that Nick was already under the impression that chokeholds were to be reserved only for the most severe scenarios and therefore, additional reform did nothing but make it more difficult for officers to protect themselves if being physically attacked. This feels “stupid” to Nick because of this impression – if this was already an uncommon practice amongst him and fellow officers, the nature of the new bill becomes not only unnecessary, but harmful. However, it is important to note that prior to 2020’s reform bill, Massachusetts did not have a statewide ban on chokeholds (Amiri, 2021), suggesting that while Nick may have felt it was being used sparingly, there was no formal legislation in place to prevent its misuse.

Another officer from a separate Massachusetts agency reaffirmed this concern, when discussing decertification resulting from cases of racial profiling. Amanda, a patrol officer, tells the story of a colleague who was accused of pulling someone over solely because of their race – the officer feared for his job to such an extent that he told her, “if I pull over a Hispanic person,
I'm going to pull over a white lady. I'm going to find a white lady to pull over right after that, just so that nobody can say that...I will wait at a light beside a parking spot, and I will follow a white lady until she does something so that I can pull her over. And that's the stress that people are dealing with now.” This quote exemplifies that some officers so greatly fear being arbitrarily accused of, and punished for, racial profiling, that they feel they must go to great lengths to protect themselves. Not only are the changes to these decertification processes punitive, but they hurt the individual officers who are not already bad apples or in need of any systematic change.

This fear of being labeled as an officer who engages in racial profiling is not only reaffirming disdain for changing policy but also distinctly changing the way these officers do their jobs, according to Amanda. The defensive strategies of attributing malpractice to a few bad apples or a flawed geographical culture cause officers who feel that such errors do not apply to their own work to see such changes to policy as the root cause of them changing their own behavior to improper practices. In this officer’s logic, it is not the instance of others racially profiling that is the problem, but rather the policy itself that not only raises fear for their job, but is causing the perception that new practices must be adopted to prevent potential accusations. When officers continue to deny the existence of a systemic problem, either through an individualized or subcultural argument, they may overestimate the potential for harm caused by these reforms and view such change as the problem itself, rather than as a consequence of repeated instances of misconduct across the profession.

For these officers, taking such extreme stances against new policies helps reaffirm their belief that the reforms themselves are not necessary and only represent a public desire to punish officers for the actions of the bad apples or flawed subcultures within policing that foster biased practices. Participants engaged in this level of posturing and defensive othering to deny the need
for systematic change. In doing so, they reaffirm their own beliefs that there are not systemic problems within policing that require any sort of widespread change to practices. These narratives allow officers to delegitimize calls for change and pinpoint flaws in these new policies that will harm well-meaning, good officers like themselves. Interviewed officers invoked fears related to unjust firing, actual physical safety, and the creation of a demotivated workplace culture as potential consequences of legislative changes and denied claims that they may be part of the wider problems related to instances of police misconduct.

**Policy/Reform as Flawed**

Officers were also able to engage in a defense against these new policies and reform efforts through the strategy of finding flaws among the people who implement them. In particular, the mistrust of nonpractitioners, such as politicians and academics who create and support these changes, is also informed by officers’ denial or distancing from any narrative of a systemic policing problem. Given their position that there is no need for such significant and drastic change on a systematic level, officers argued that individuals are making laws that harm police because their own perception of police as harming the public is flawed or false. For these officers, this perception allows them to shrug off widespread calls for change because of their belief in their own distance from the individual bad apples and biased subgroups of police that have distorted the public’s view of how policing is done.

Participants discussed these erroneous choices of political and academic decision-makers from a defensive position, arguing that new policies harm both the public and the police and are rooted in a misunderstanding of the pervasiveness of police misconduct. Officers were able to make this argument by denying the credibility of those who inform these legislative choices and the public and media sources who spread false information. Most of this resistance seemed to be
focused on the lack of personal experience of these other sources and the extreme conditions faced by police. George, a patrol officer with only 3 years of experience, put it simply: “until you go through these things, you definitely cannot understand the perspective of a law enforcement officer, of somebody in fire, of somebody in EMS, or the military, and it is invaluable when it comes to writing in change.”

A Sergeant in the same state, James, emphasized that the experiences associated with the worst parts of the job are so impactful in one’s understanding of it, noting that “we see people and we deal with them when they're at rock bottom, you know, yeah, the bottom. And no, sometimes researchers or politicians or academics, they don't see those things. So yeah, it's almost like, you know, walk in my boots and see what I see before you tell me how to do my job.” To these officers, it is evident that outsiders cannot make decisions about policing until they have understood what the experience of being an officer is truly like. Only those inside of the profession, or those who have bothered to “walk in [their] boots” can understand the difficult choices that must be made. This logic reinforces the notion that the perceptions of outsiders are flawed and would be corrected if they truly understood the job. Subsequently, if the perceptions of the public were corrected, they would see as these officers do, which the findings suggest is through a lens of bias and misconduct as an isolated issue.

Officers specifically highlighted the need of decision makers to have been through the worst conditions associated with policing, and that without that first-hand experience “in the trenches” (Leo), one cannot fully grasp the type of choices officers need to make. Nick, a training sergeant whose department has a virtual reality (VR) simulator, often encourages people who criticize the police to come make use-of-force decisions in this program to reveal the flaws of their second-hand opinions:
I think that if you're going to be in this field, then you better get yourself on as many ride-alongs as you can, better get yourself into a police department and sit in dispatch for as much time as you can. And if you got somebody who has a simulator, you should get into that thing and have to make split second decisions under stress. Definitely. Then you have a better understanding of what it is we're talking about. So we have a simulator here. And every chance I get to invite someone in, I do and I love it. If they're critical, ‘Like, oh, you think this is easy? Okay, no problem. We'll give you some really easy scenarios. And I'll put you in there. And we don't expect you to know everything. But guess what, you're going to have to make a couple of decisions.’ And they come out of it like ‘Oh my god, it was so hard’. Yep.

Nick’s use of the simulator to essentially correct others’ opinions about the choices of law enforcement during citizen encounters highlights the nature of the defensiveness of officers’ positions and the disregard with which they view others’ perspectives. In utilizing the logic of this defense, officers create the narrative that only law enforcement can or should make decisions that impact the profession or can accurately see the isolated nature with which these instances of concerning behavior (i.e., bias) take place. Despite the defensive strategies officers used to isolate bad apples and bad departments, individualizing narratives of misconduct, they then reclaim the broader police force as their in-group only when deciding who should make policy decisions. This allows them the space to distance themselves from the counternarratives of the public and other outside professionals by delegitimizing their stance entirely; arguments about what police should or should not do cannot accurately be made by anyone who has not engaged in this work themselves, and therefore, the arguments do not accurately apply to the actions of these officers at all.

During each interview, participants were also asked directly about the role they believed academia should play in these reform efforts, especially given the increased scholastic interest in police practices. Derek, a tenured lieutenant from Connecticut, argued, “I mean, there is good
basis for [academic research]. The reason I say that is, depending obviously, the perspective that you have somebody coming into it with - a pre, you know, preconceived notion of what research they're looking for - if it was like, say a Black Lives Matter person like, ‘Oh, I'm gonna show police work is bad’. Then obviously, what do you think you're gonna get?”

Derek’s concern over the connection between academia and left-leaning movements such as Black Lives Matter suggests a broader belief that research is inherently flawed and biased against police. George, a patrol officer who recently completed a degree in higher education, confirmed these suspicions, stating, “especially after going through school myself, you know, I have a hard time. I have a hard time accepting many people from the strictly academic side of things, knowing how at least seemingly corrupted, the academic side of things can be, you know.” These participants express that nonpractitioners, particularly academics and legislators, either make no effort to engage in this type of understanding or refuse to do so with malice intent to create policies that harm the policing profession. With this deep-seated mistrust, it is easy for officers to wholly disengage from the argument and reinforce the defense that the biased, spiteful work of these other parties is not actually necessary, but rather punitive, misguided, and representing a response to those other bad apples or agencies that engage in misconduct. In doing so, they reaffirm the notion that the concerns of officer malpractice and excessive use of force are not legitimate, nor do they apply to them or their peers, allowing them to continue a systematic avoidance of systemic flaws in their institution.

These concerns of law enforcement, while legitimate, reveal the deeper distrust of non-practitioners and the belief that the extent of reform recommended by these individuals is not rooted in reality. A training Lieutenant from New York, Leo, expressed direct concern that academia is out to intentionally harm the profession: “I think we have seen the shift where
academia is very interested lately because of public climate and their feelings towards law enforcement. [Law enforcement] can’t help but look at anyone in academia and think they’re trying to make us look bad, find statistics and use them to hurt us.” The belief that academics are skewing data to reflect a false, negative narrative of law enforcement reaffirms the denial of these officers that there is any legitimate systemic problem within policing and that their resistance to these new expectations is valid. Even when researchers’ data suggest a need for concern over police bias and use of force (Geller et al., 2021; Hoekstra & Sloan, 2020; Ross et al., 2021), it is not the actions of officers that cause this perception, but rather, the liberal, untruthful agendas of the scientists who publish it.

Other participants extended this logic to the legislators and media who, they believe, use academic findings to support their own agendas for harming police. Nick, who previously described the steps he personally takes to break down these false narratives (by inviting the public to use the simulator), expressed disdain for how media has contributed to this widespread problem:

I freaking hate the culture wars. It's like a stupid waste of time. And I remember before, before that time when nobody cared about this stuff. Nobody even cared. Like nobody had - it never even entered anyone's thoughts during the day. It used to be like, hey, who cares what other people do. But now we're all wrapped up in everyone else's business. Yeah, we got these cable news networks and social media pumping up discord, you know...

This argument suggests that the media can be faulted for creating problems around policing that had previously never concerned anyone, and that the actions of police have been inextricably caught up in these “culture wars.” To these participants, like much of what has been caught in this public discord, the public eye being trained on police misconduct is unnecessary and illegitimate. For Nick, his denial of the legitimacy of these larger societal concerns reaffirms that
policing itself is not experiencing any problems, but rather the media is latching on to the bad apples or few agency subcultures and turning misconduct into a more widespread issue.

Chris, a Criminal Investigator for his District Attorney’s office, reaffirmed this concern that the media is hindering the police-community relationship. While less direct in his opinions than Nick, Chris expressed similar concern, noting, “look, I'm not gonna get into, you know, left or right, all that stuff. But what I will say is, it's very hard for us as law enforcement, to confront the public with facts and with truth, when, when that narrative is already been set by the media for them.” Chris expresses a clear delineation between the facts and truth that the police can offer and the false narratives of the media. In doing so, he is able to deny the need for further investigation into, or reform of, use of force and other misconduct as is exacerbated by the media and public. In addition, he makes it very clear that on one side, the police are offering “fact and truth,” and any other argument against these narratives must be false. This very distinct difference delegitimizes the counternarrative and conclusively reinforces the argument these officers are making that there is not a systemic problem in policing.

Other participants also expressed direct distrust of their local legislators who create and enact changes to policing without having had such experience. Similar to officers who expressed concern over academics, these participants focused on the choices or attitudes of their local law makers and explored how these anti-police perceptions may impact their decisions. Amanda, a patrol officer in a liberal Massachusetts community, spent a significant portion of the interview discussing the politics of her town and the difficulty of being a police officer in this space. In alignment with the political arguments made about academics by other officers, Amanda expressed a significant concern with the personal positions of her city council and their ability to enforce laws or support their fellow government employees (the police). Specifically, she noted
that, “City council has a couple members that have started an organization called ‘Defund [PD]’ because they're part of a larger organization called the Democratic Socialists of America. So, when they became, when they won city council, they started that organization so they're very, all three of them are abolitionists there. They're like self-proclaimed abolitionist and they don't think we need police at all.”

Amanda’s concerns over the far-left leanings of her community leadership lead her to negate the legitimacy of their choices. As “self-proclaimed” abolitionists, these council members are not people who can be trusted by her organization to do anything that is in the interest of the police, as she goes on to say that “it is their goal to make sure that the rest of the city agrees with them. And I think since they became the city council, it's been rough because they have pretty much instilled this view of like, don't fuck with the police in [city] or anywhere. So it's been rough. It's been really rough.” This clear disdain, evident in both her words and the tone she used when speaking about this issue, for how her new city council members approach policing is rooted in the way they, in her perspective, reinforce negative perceptions among the public. For Amanda, this is a clear example of how her local government system seeks to end modern policing and further the false narrative that police need not be respected. While this represents a far more extreme example than most other officers were able to provide, Amanda’s experience highlights how the political leanings and choices of decision-makers in her community can easily be disregarded as excessive or unnecessary for solving true problems within policing. In taking it so far as to call themselves “abolitionists,” Amanda can view any decision by these council members as inherently biased or anti-police, negating any legitimate argument they may have for reform.
Julia, the training sergeant for her organization, similarly expressed outright disdain for a nearby prosecutor who she believed was also making choices that harm both police and the public:

our County prosecutor, in her infinite wisdom - she's anti-police, by the way - about two-three years ago, came out and said that she is no longer going to enforce loitering or disorderly conduct tickets. That's all the stuff that we have in this hospital is loitering and disorderly conduct. And if somebody is disturbing the peace and good order of the neighborhood, and the officers can't arrest them for it, why are people calling the police? You're just going to have more and more people taking law in their own hands.

Julia’s concern over the prosecutor’s decision is so significant that she believes it has not only taken power away from the police but will create a system of vigilante justice in her community. The prosecutor’s “anti-police” position helps Julia create counterarguments against this choice to no longer enforce loitering and encourages her belief that these policies are merely meant as punitive action against law enforcement. Despite news articles that suggest loitering and disorderly conduct enforcement persist across the country (Francis & Carr, 2023; Hamrick, 2024; Hutchinson, 2022; Skene 2023), Julia remains actively concerned that this prosecutor, who is “anti-police,” is creating more harmful narratives and practices that will further disrupt the ability of her agency to do their jobs successfully and appropriately.

Additionally, Julia does not acknowledge the wide array of “broken windows” literature that suggests that targeted, zero-tolerance enforcement of such low-level crimes as loitering and disorderly conduct disproportionately harm people of color, as well as impoverished and near-gentrifying communities (Babe Howell, 2016; Collins, 2007; Smith et al., 2021), and have mixed results in their effect on overall crime (Lanfear et al., 2020; Zhao & Zhang, 2023). Whether this stems from a lack of knowledge of this research or from a conscious avoidance of such findings is unknown, but the fact remains that officers such as Julia will deny the importance of reducing
such discriminatory practices in the name of avoiding the larger admission that such change is necessary. For Julia, the lack of awareness or consideration of these findings allows her to deny the commonplace practices of law enforcement that create, or contribute to, biased policing and isolate instances of misconduct as irrelevant to the needs and policies of her own organization.

These narratives of participants expressing concern over the legitimacy of the choices and opinions of anyone not in policing, particularly academics and public officials, display a cognitive process that allows officers to cope with or feel removed from the recognition of systemic flaws in policing. In delegitimizing the source or impartiality of the individuals expressing these concerns about policing, officers are able to continue with their beliefs that these instances of misconduct are either isolated or represent the flawed subcultures of distinctly other policing spaces. Specifically, denying the validity of data used by academics, focusing on the political agendas of legislators, and expressing the exaggerated nature of opinions of the public as informed by media allows participants to deconstruct the larger argument that there is even a significant need for reform in policing and solidify their own coping logic and defensive othering against these calls for changes and examples of police misconduct. This denial of the value of these other perspectives is key in allowing officers to maintain their identity as one of the “good” officers. This identity is why such suggestions for reform feel deeply personal and represent a larger attack on these good officers and good departments who seek to differentiate themselves from the bad ones. When officers can pinpoint specific instances of academic or political dishonesty, this acts as a sort of confirmation bias of their cognitions and defensive coping that such accusations against police are flawed, false, and represent an over exaggeration of an insular problem.
Exceptions to the Rule

Some individuals who already have a natural degree of separation from these issues of policing that happen at the patrol level (either because of position or agency type) are the ones most likely to acknowledge the need for change or concerns about the profession at large. Participants in the current study who did not need these distancing strategies included correctional officers (William), retired agents (Mark & Peter), and people in non-patrol capacities such as hospital security (Jared). In having a position that naturally removes them from this problem, it is easier for these officers to acknowledge the problem because it can never be traced back directly to them. Conversely, patrol officers and others in traditional policing roles cannot acknowledge that a systemic problem exists, because then it applies directly to them, and therefore, they must reinforce the notion that these instances of misconduct are isolated to specific bad apples or bad agencies.

Jared, who works exclusively in a hospital setting and is not engaged in community-level patrols, expressed deep concern for any police officer who does not understand the severity of the role they are given. When discussing the importance of being open to reform efforts, he expressed the need for officers to understand one simple question, “I think what society has said, it's not that we don't value police. It's just that ‘Hey, guys, you can do a little more.’…The question I think society is asking as we transition from old policing to new policing is ‘do you care enough about people to be a cop?’” In posing this question, Jared emphasizes that the community has placed a high level of trust in law enforcement and that officers should make a distinct effort to rise to that challenge. In being someone who does not directly engage in that level of community work, he is also able to express these concerns without necessarily incriminating himself in the flaws of the system.
Peter, who retired from a local police agency in 2011, shared a similar sentiment about the role and expectations of police who are asked to be the primary visible representation of our government within the community. He acknowledges that this calling is particularly high, and therefore, when asked to change or try new things, officers should be willing to meet these standards, “But we're in that position, you know, you're given a gun, a badge and the right to take people's freedom. It's, it's sticky…Look, we're not taking a tool away from you. We're giving you another tool for your toolbox.” As these non-patrol professionals explore what it means to be a police officer, they are better able to acknowledge the true nature of the responsibilities associated with that role. Since they have a natural degree of separation from the concerns about how officers engage with community members, they do not need to engage in the same defense strategies and can explore the need for reform more openly.

Mark, who retired from a federal agency in 2021, and William, a correctional officer from Kansas, both focused on the need for significant reform efforts that incorporate academics and research to better officers’ understanding of their role. For Mark, this effort towards improved policing can only succeed when parties beyond policing are involved,

The more people involved in this subject matter, the better…Because, especially the local police officers, in my opinion, they're so insular that they hang out with each other, you know, professionally, personally, and they talk shop a lot. So that's what they're involved with, and their entire life professionally and personally so I think then, with education and awareness, they could benefit from the involvement of academia in this subject matter.

This narrative, which is largely informed by his own role as an academic in retirement, suggests that he sees areas in which law enforcement needs to be improved and that the single-minded nature of the profession cannot lead to significant change alone. For Mark, the inclusion of outside professionals and scholars will aid law enforcement in seeing the value of new ideas and
making meaningful change. Both as a federal agent who never engaged in patrol work and as a retiree, Mark admits this need for outside support without implicating himself or federal agents in these efforts. William, with only three years of service thus far, can separate himself by noting that “corrections is just different.” He agrees with Mark that additional insight is needed for meaningful change to occur. When asked about how he feels regarding the role of academics and legislators in these calls for change, he states, “I'm not too bothered about it, maybe some other people are about it. Because like I said earlier, when I do research, or when I read stuff, like in the classes and stuff like that, I’m trying to see how well I can apply these tactics and tools to be able to make myself a better officer at the end of the day.”

Given that corrections officers are not often viewed in the same vein as traditional patrol officers, William can express the need for these efforts without connecting himself to the misconduct that has led to the calls for change. He also notes feeling less of the pressure from the public eye, which may inform his openness to discussing change, stating, “Yeah, talking to friends and family, they know I do different things than law enforcement does. Of course, they don't really get to see us on national TV everyday, or on their phone or on Tik Tok or whatever. Yeah. So ours is a very, behind the scenes kind of thing, which is, I would say, good for us, because we're kind of out of the limelight.” His ability to encourage change and seek out new research represents his own personal dedication to improvement and his natural separation from broader policing issues, as well as the lack of social pressure applied to him and his profession specifically. William is able to both acknowledge that corrections can be improved and still not feel that he is admitting to some larger systemic flaw in his institution.

Conversely, officers who are deeply connected, through duty or place, to the high-profile injustices within policing must engage in defense strategies that both deny their personal
involvement in such misconduct and refute the systemic nature of said problem. Participants clearly attempted to make these clear distinctions between themselves and the “bad apples” by 1) expressing the ways in which proposed reform efforts may harm officers, 2) negating the legitimacy of the people who call for change, and 3) distancing themselves geographically or generationally from the culture or character that leads to misconduct. When natural lines of demarcation exist, officers are more willing to acknowledge that reform is necessary, but otherwise will reinforce the notion that misconduct is rare and largely inapplicable to them and their colleagues. This was particularly true for officers from the Northeast, who were quick to negate the concerns of misconduct in this area, citing high-profile instances from other areas of the country and perpetuating the notion that racism and overt bias are uniquely Southern problems.

This work supports prior literature regarding resistance to change and the generational gaps that are so commonly reported within policing (Duxbury et al., 2018; Lingamneni, 1979; Mastrofski & Willis, 2010; Schafer & Varano, 2017). In addition, the use of qualitative evidence in training literature may help inform efforts to implement new training or policies around policing behaviors and the unique barriers to success that should be considered. The importance of these defensive strategies and “othering” of officers in need of change is explored specifically within the training context in the next chapter.
CHAPTER 7: QUALITATIVE RESULTS

TRAINING PERSPECTIVES

In addition to posturing against the need for reform or significant change within the profession, participants also utilized these same strategies when providing insight into their training experiences. Officers expressed great personal buy-in to NDTC’s training and other educational experiences within policing but did so while still invoking the “otherness” strategies explored in Chapter 6. In particular, they supported the value of these types of programs but emphasized that it is other officers who are most in need of this additional education. These narratives allow participants to position themselves against other officers who are most in need of change, which subsequently creates space for them to claim support for NDTC’s program without directly acknowledging a personal need for this type of training exposure. In addition, participants overwhelmingly expressed support for the training but did so in ways that allowed them to still deny that it is part of a larger attempt at cultural change within policing or served as validation of the need for wider reform. The current chapter will explore this underlying theme across the ways in which officers discuss NDTC’s program, as well as their other prior recruit-level and in-service training.

Overall Experience with NDTC

During the interviews, participants were asked to provide general feedback regarding their experience with NDTC’s training program. Attitudes towards this training were overwhelmingly positive, across both the 2-day and 5-day training models. Despite their posturing as not in need of personal education or reform, as explored in the prior chapter, participants repeatedly discussed the value that this training would have in improving their own behaviors, including visible changes they had already identified and believed could be
implemented department wide. Officers often acknowledge the value of this training as providing another “tool for the tool-belt,” or a new alternative method for approaching common citizen interactions.

Several trainees expressed overall support for NDTC’s program, indicating that they felt this training was in line with some of the best they had received over the course of their in-service career. Leo jokingly noted, “I’m actually telling the truth this time when I say it’s one of the best classes I’ve ever taken.” Peter, a retired detective who spent 25 years on the force simply said, “it's probably the best police training I've had in my entire career.” Another training sergeant, Julia, said the training was “phenomenal” and wished she had it while she was a patrol officer. She also clarified that several of her officers came back from training reporting similar sentiments:

All of them came back saying, 'I wish I had had this training years ago. I wish I had had this when I was on the street. I wish you guys would teach us this when we get here'. Because everybody raved about it… Supervisors have even recognized that the officers that have been to this class are a better quality officer and are better able to handle situations and they can rely on them better than the ones who haven't.

This powerful narrative supports the quantitative evidence (see Chapter 5) that cognitive changes are taking place as a result of this course. Officers are not only happy with the material but provide explicit insight into the ways it has better prepared them to serve. While this may reflect a desire to provide a positive response for the researcher, who they were aware had been hired by NDTC to conduct this evaluation, these narratives contradict the previous data in that participants had taken great lengths to separate themselves from officers who need behavioral change, but now expressed deep appreciation for these learned skills and their applicability to daily policing tasks. For many of these participants, because this training is not mandated by
POST, nor makes any suggestions for completely replacing departmental use-of-force policy or practice, they may have felt free to express interest in the program without feeling that they were incriminating themselves in a widespread need for change. This degree of cognitive separation between the training and the broader calls for behavioral reform in policing allowed officers to focus on the merits of the current training as distinct from any supposed need for it.

The data explored in Chapter 6 highlights how officers create defense strategies and try to exclude themselves and their peers from poor representations of police conduct and organizational culture. In being asked to share their thoughts and feelings about the course generally, and not to speak to the value of implementing or mandating this training more broadly, officers may have felt free to express their enjoyment in the course and value of the material without implying a broader need for de-escalation training. Viewing this training as a positive “tool in the tool belt,” and not as part of a proposed solution to a widespread use-of-force problem, allows space for exploring the value of NDTC’s curriculum in furthering one’s skill while still denying the need for reform in other contexts.

In support of NDTC’s training, Jared, a patrol officer, equated the level of cognitive skills development achieved in this course to any other muscle memory task he had been taught during physical training: “We're being trained in how to be better in the first step of contact, prevent that other stuff. To me, that was great. I think that was, it ingrained in me just as much as it did how to ride a bike when I did bike training.” In making this analogy, this patrol officer exemplifies the goals of NDTC’s program – to deliver high quality training that can have meaningful, practical application for all officers, regardless of if they identify with the need for widespread change within the profession.
Participants also experienced buy-in to this program specifically when introduced to the DISC personality assessment. The narratives shared around the DISC profiling program, particularly the individualized reports received by each participant based on responses they completed prior to attending training, served as a significant point of insight into the value of NDTC’s program. Several officers acknowledged the acute accuracy of the profile in explaining their own personality and behaviors and felt that seeing it applied to themselves gave validity to the concept as a whole. In having answered only a handful of questions about their daily lives and subsequently being profiled so accurately, participants found that moment in which they received their complete profile during the first day of training to grasp their attention and make them far more committed to the materials being covered.

As Jose noted, “I would say that the biggest seller was the personality tests. And then once the tests were given to us, it almost started to kind of... you were able to piece together exactly where they were going. And it made sense.” Similarly, Luke acknowledged, “when you learn more about, you know, just listening, and like the whole like tendencies of people this and that. And then, when I got my report back on myself, I'm like ‘holy shit’. Like it's, I know myself and like, it nailed me.” Simply seeing the DISC profile applied to themselves creates the buy-in for the program and led individuals to report feeling more invested in learning and utilizing the model once they saw how accurately it identified their own personality. A correctional officer, Leo, who took the training recalled not only his own amazement at his personal DISC profile but recalled the shock of his classmate, saying, “Another person in the class was almost a little angry that in a 24-question survey, they could pinpoint exactly his personality.” Despite several participants having previously argued that they were already incorporating similar de-escalation
practices into their daily work, these narratives suggest this personality profiling was both brand new and informative during the NDTC training.

For George, who attended the five-day program, the DISC profile’s validity and its role in his buy-in to the training came not only from his personality assessment but from the very specific connections the trainers were able to make between his personality type and behaviors he may engage in, both at work and at home. As he noted,

And [the trainer] did pick me out individually as a certain personality type, and would kind of throw things out there like, ‘Oh, you're probably like this’, or ‘Oh, you're probably…’ I'm like, I'm like, ‘wow, okay. All right’. And it wasn't that he was saying, ‘Oh, you're, you know, very analytical’. It was, you know, ‘When you go to the grocery store, you do XYZ, when you're there’. And I'm like, ‘Oh, wow. Yeah. Okay, maybe this makes sense’. And, yes, over the course, of two to three hours. I was I went from being very skeptical to like, 'Okay, this is, you know… show me how to do this. I think this is fantastic.'

In sharing this experience, the officer is describing the moment of buy-in as a significant step forward within the context of both this specific training and his overall willingness to learn and utilize these profiling skills. Not only did it alter his perception of the training itself, going from skeptical to invested, but also made him eager to develop the skills necessary to utilize this training during his work.

Officers were also introduced to a more comprehensive understanding of what each DISC personality looks like through the use of characters from popular culture, such as superheroes, professional athletes, and sitcom characters. This not only helped improve comprehension, but for some, validated the analysis of their own personality by seeing the comparison with characters they relate to. Amanda’s buy-in moment came when learning that her personality profile closely matched that of one of her favorite television characters,
I'm a, primarily, C personality. And like the example one of the instructors gave of a person is Sheldon from the Big Bang Theory. Yeah, so I texted my girlfriends, and I said, I told them all about the personalities in that and I go, ‘I'm a C personality, which is like Sheldon from the Big Bang’. And they were like, ‘Yep, I'm already fucking sold on the training because you are definitely a Sheldon.’

While some officers reporting being unable to relate if they had not watched the shows/movies being referenced, it was clear that it helped the majority of officers interviewed understand and apply the DISC model by being able to map each personality type onto known characters or celebrities. When professionals “buy in” to training or begin to see legitimate value in the course materials, they not only are increasing their willingness to learn and listen, but may be more likely to attempt integrating the skills into their daily practices (Grebing et al., 2023), particularly in policing where there is much ground-level discretion in how to approach interactions (Weisburd, 2000; MacQueen & Bradford, 2017). Despite participants’ prior suggestions that the need for more training or widespread change to police practices did not necessarily apply to them, officers were unable to deny the unique nature of NDTC’s personality assessment tool and its use in citizen encounters.

Participants also specified enjoying other elements of this program that they had not necessarily experienced in other in-service trainings. Derek emphasized enjoying the “candid… judgement-free zone” that was created by trainers, allowing for in-depth discussion of use-of-force issues and other concerns plaguing the profession more broadly. Others commended the overall structure of the course and the use of current and former officers as instructors (Amanda). Several of these participants specifically focused on the interactive nature of the training and the way in which instructors created space for discussion and consideration of the principles being taught. An officer, Amanda, who complimented the instructors noted that “they would, they
would stop at a slide and talk about it. Not just read off the slide, and we'd have a discussion about it. They'd give examples about it.”

Others compared it to CIT training, the primary de-escalation exposure officers had prior to NDTC’s program. In CIT, Jared argued, “It was just, I learned, someone taught me things. It wasn't, there was no 'here, apply this'.” These key differences in NDTC’s training, particularly regarding the “unique” (James) rapid personality assessment, represented a marked improvement over other these other de-escalation trainings, according to participants. A Sergeant, Julia, noted, “those are the little things that as we're putting these personalities together that we can start using to maximize results. And ultimately, that's what I was after. What can I do to help this person in this moment? I think that's what makes your product unique.” For these officers, the applied nature of this program and the ability to immediately implement it into practice was central to their support and buy-in to the value of NDTC’s curriculum. In learning direct, transferrable skills, officers claimed that this program would greatly impact their policing. However, it is important to view this focus on applied skills in the broader context of their narratives emphasizing that the need for significant practical change does not apply to them, or most officers, directly. As simply a “tool in the tool belt,” or additional enhancement to an officer’s pre-existing skills, trainings such as NDTC’s are not viewed as a threatening wide sweeping change and are therefore still accepted despite broader resistance. Participants then feel free to express significant buy-in to this program and its use at all levels of law enforcement education without doing so in ways that suggest a systematic need for change in how de-escalation is practiced.

While some participants expressed not necessarily feeling ready to incorporate these assessment strategies in their daily practices or being unable to identify with some character
examples, there was not any outright, negative feedback related to NDTC’s program. Selection bias may play a significant role in this disproportionate feedback from interviewees; however, ethnographic field notes confirm the general support that officers provided during the program and in informal conversations among peers. Course evaluation scores (see Chapter 5) also reaffirm this overwhelming support, with participants having generally strong agreement that the course taught them applicable skills and was taught well by the chosen instructors, despite the other posturing they engaged in regarding their own need for new police practices.

NDTC’s unique and up-to-date training, while having room for incorporating officer feedback, seems to represent a level of academic knowledge and skill development not often received by police during in-service programming. While training experiences among agencies and Regions varied from recruitment to in-service and perspectives of the value of academics and research in the profession were uncertain, officers supported the goals and mission of NDTC and generally felt there were opportunities to utilize their new “tools in the tool belt.” However, further exploration of participants’ experiences with prior programs and in-service education unearthed a continuation of the previous chapter’s themes that resistance and distancing strategies were utilized to undermine calls for systemic increases to officer training.

**Incorporating De-escalation Earlier**

In addition to indicating broad support for NDTC’s program as an in-service training, several officers suggested that it should also be offered at the Police Academy or earlier in an officer’s career. While these officers acknowledge that this requires a significant amount of bureaucratic effort and may not be immediately feasible, they still encouraged consideration of reinforcing these skills among individuals who are newly appointed to their roles, emphasizing their prior argument (see Chapter 6) that younger officers uniquely need increased exposure to
these concepts. In doing so, participants reinforce the notion that there are generational gaps or flaws in the way younger people police and engage with their community members but do so in deference to the usefulness of NDTC’s program. This allows participants to separate themselves from those who need this additional level of support and clarify that while they support NDTC’s program, they also believe it would most benefit the officers they have deemed as “other” or in this case, more junior. However, in these narratives, officers still focused on the singular nature of the value of training, pinpointing why specific groups of officers, particularly recruits, may benefit from the program without acknowledging that there is a widespread, systemic need for it across the profession.

Some officers argued that by exposing more junior staff to NDTC’s program, these trainees who have greater needs would be better able to utilize the evidence-based skills needed to successfully police the community. Specifically, participants argued they could see this as having a greater impact than it does on officers who are well into their service and may be more resistant to change. As Mark, a retired Special Agent noted, “It's important that young police officers will have this extra tool that they have, you know, when they go on the street, you know, compared to like 20 years ago, where we didn't have it.” As Mark notes, exposing individuals at an earlier stage in their careers may aid them in developing the skills needed to successfully de-escalate in ways that were not offered when he was coming on to the job. As noted in the prior chapter, Mark explores the importance of NDTC’s training more openly as a retired federal agent for whom concerns about police-community relations do not apply.

Luke, a patrol officer, argued that this level of training may be best offered early in one’s career simply because tenured officers may not be as receptive: “we have cops in my department, for you know, been there 10 years, and we were just kind of, not joking, but we're kind of talking
about the other day how you know there's a situation where some officers are just like so tunnel vision...” Another Lieutenant, Derek, who had been on the force for 23 years agreed, noting “while I'm a little more open minded, getting to a guy with 20 years on the job trying to ask them to do something. Yeah, they're not gonna do it.” These officers reaffirm the aforementioned generational gap in policing (Campeau, 2019), arguing that behaviors become particularly engrained in this population and resistance to change makes implementation of newly learned skills more difficult among tenured officers (Duxbury et al., 2018; Lingamneni, 1979; Mastrofski & Willis, 2010; Schafer & Varano, 2017). Despite also being experienced officers, Luke (19 years on) and Derek (23 years on) can separate themselves from these resistant officers, arguing that there is a subset of others who have “tunnel vision” (Luke) or are not as “open-minded” (Derek). Emphasizing the value of NDTC’s training for young officers and the lack of receptiveness of older officers allows these individuals to further the generational gaps in police practices while still acknowledging the value of NDTC’s program and their own personal investment in the training’s success.

Participants commonly invoked this defensive othering strategy (Schwalbe et al., 2000) by also clarifying that while NDTC’s program was useful to them, its primary value was in reaffirming the behaviors they had already personally chosen to engage in. Through this othering, they continue to separate themselves from both recruits who have not yet developed these skills and other tenured officers who may not be as receptive to this type of programming or behavioral change. Officers emphasized that while they may have already been utilizing the interpersonal communication skills explored in this class, being given the terminology or getting to learn the psychological logic behind it allowed for reaffirmation of these choices. Derek clarified that, “while I was doing some of it already, it opened my eyes to what I was doing. gave
me more some more skills to build off of.” Jared similarly emphasized, “I believe in de-
escalation as a primary approach to all interactions. But they just kind of helped really opened
my eyes to the benefits of it.” A patrol officer, John, acknowledged that the DISC profiling
system simply served as a reminder of what he already logically knew, stating “it kind of gives
you a reminder of, hey, everybody's got a certain personality. And sometimes you kind of got to
use, you know, the tools in your pocket, or on the belt, you know, metaphorically.” These officers
are providing verbal support for the program while also clarifying that it simply serves as a
reminder or reinforcement of the behaviors they personally have already chosen to engage in.

Jose, who attended NDTC’s 5-day Train-the-Trainer program, similarly acknowledged an
almost immediate implementation of these strategies, particularly the language associated with
the DISC strategy, recalling “I remember coming in that week during class, and I'm like, 'Hey,
did you DISC anybody today?’ You know? We'll always use that as a reference.” Jose was able to
clearly articulate the centrality of these language skills, while also reinforcing that these
definitions primarily serve to further the behavioral strategies he was already using, “That's one
thing that I reflected on during the week is like, man, you know, I've seen those sorts of
personalities, but I've never put a label on them. And I think just kind of knowing some of the
nuances and, you know, it helped me develop a little bit of a shortcut to kind of get where you
needed to be.”

This quote from Jose highlights that even when using these new language skills, they are
placed in the context of improving strategies and practices he was already using regularly. In
arguing that he had previously considered personality types but could not articulate them prior to
training, Jose is still able to distance himself from the other trainees who may have considered
this to be a completely new concept or who did not previously attempt to de-escalate citizens
with such thorough strategies. When participants utilize this distancing strategy, they are able to acknowledge the additional value of training while still maintaining their own status as an officer who already engages in best practices regularly. This allows them to further the arguments made in the prior chapter, that there is no need for widespread behavioral reform so long as there are officers already using these de-escalation strategies. However, in situating NDTC’s training within the context of providing specific language related to these practices, they are still able to express great support for the program without implicating themselves as in need of, or previously unaware of, this skill-based education.

These statements display the posturing officers so frequently engaged in; participants will express support for the content learned during the training, but in doing so, feel that they must reaffirm they were already engaging in these practices. This allows a degree of separation between themselves, who utilize training as a validation of the ways in which they already police, and the “others” for whom this may be brand new. In clarifying that they had already utilized these strategies, officers are able to suggest that they have always engaged in these proper policing practices and that the training simply “opened their eyes” (Jared) to why it is so important. This identity work in which they situate themselves as having already utilized these best practices, and as distinctly separate from other officers who have not, allows them to further the narrative that there is no systematic need for de-escalation education. Participants, in viewing NDTC’s training as detached from these calls for widespread change, continued to reinforce the perceived value of the program without needing to acknowledge that such training is part of larger efforts to change police-citizen interactions. While they reported having positive experiences, this degree of separation from a larger need for training allows them to reinforce the idea that there are plenty of good officers out there already engaging in these proper strategies,
and that additional training, especially at the recruit level, would only bolster the metaphorical toolbelt of other, less experienced officers. Essentially, in supporting the expansion of NDTC’s training while simultaneously rejecting broader calls for change, participants are able to deny the need for systemic change in their use-of-force strategies so long as it remains an option, additional tool in the toolbelt.

**Training Evaluations and Delegitimizing Methods**

Despite having expressed their disdain and distrust for academics and their published works (see Chapter 6), officers also postured as being different from other officers and clarifying their pre-existing skills by attempting to showcase their own academic acumen. Having previously acknowledged that they could not trust purely academic work, because it comes from distinct outsiders or others, some participants attempted to present as well-educated in these spaces in order to prove their abilities to understand, and subsequently undermine, research methods. This contradictory narrative allows officers to create the perception that they are well-versed in this area, which validates their own trepidations towards academics and scholastic findings related to policing.

Officers repeatedly positioned themselves as both distrusting of outsiders studying policing and knowledgeable about research processes, to cast doubt on the credibility of studies that are used to inform calls for systemic reform. This allowed them more leverage in their attempts to resist said reforms and to position themselves as experts in policing techniques. In both negating the power of outside research and reaffirming their own role as the experts, these participants can further their identity as the “good” officers in “good” regions/departments that inherently disprove any widespread problematic practices.
One way in which participants achieved this distinction of self from outside others was through exploration of data management and analysis strategies. In particular, several participants acknowledged that the use of secondary data from departments poses a primary barrier to successful research, although they seemed primarily focused on causal inference as the goal of all research. Chris, a criminal investigator, noted,

I think most agencies that you're going to deal with have that exact same data loop. Right? That's what they're looking for. For the physical attributes they're looking for. Was the officer trained? Did you have prior knowledge? Under what- what was the conditions? Was it raining like crazy out and you slipped and fell or something like that when you were to take the person to the ground. None of it had to do with collecting information on verbal, right? Or anything like that. The only thing that might have gotten captured, and if it did, it would have been in a report where at the point of escalation, which caused the officer to react with some form of use of force. Yeah, so that's, it's going to be a challenge. Because departments need the data that you guys are going to need to see if this system is working practically, and in the real world.

This detailed understanding of how intervening variables may inform findings not only indicates a high level of understanding of research methods but also makes evident that agencies are aware of the ways in which their data collection and maintenance is lacking. For Chris, who had previously expressed disdain for the involvement of outsiders in decision-making about police practices, this statement allows him to show how uniquely situated he is to both understand and criticize research. When taking both his insider status and his academic skill into account, Chris positions himself as inherently qualified in negating some of the generalized arguments made by academics. Amanda reaffirmed this broader methodological concern, discussing the nuance created by multiple variables, stating "Like there's so many variables. It's kind of like, again, it's like weather. Like, how are you going to pinpoint where we had success? Right? …So it's gonna
be very difficult to say, well, this program was a fact because the only thing we'll really have is maybe anecdotally if you survey people afterwards…”

These quotes highlight a common misconception that the only meaningful outcome of research or goal of evaluation is to determine causation. However, the confidence with which Amanda explores this limitation suggests her comfort with research methods and reaffirms her ability to critique the scholastic work being done by outsiders who engage in policing research. Amanda had significant concerns over the involvement of academics, legislators, and the public in decision-making related to policing (see Chapter 6). Relatedly, she is using her knowledge of research methods to argue why such studies do not accurately depict policing practices. In expressing concern over survey methods as a form of research (Amanda) and clarifying the number of variables and controls that must be taken into consideration (Chris), participants reveal a relatively rudimentary understanding of research methods, but they do so in an attempt to nullify the scholastic findings that may tell an unfavorable story of policing. In focusing on the “real world” elements that impact encounters, such as the weather, these officers cast doubt on research they feel places policing in a negative light, arguing that natural police work is outside the scope and ability of academics to truly understand. This then allows them to further the narrative that research should not be used as a foundation for calls for widespread reform.

Another officer, Luke, expressed a similar concern about efforts to generalize findings, stating, “I don't know how for somebody to say like, here's what's going on in policing in America, or like, you know, across the State. It's just every state, every department, you know, every town has their own problems different, you know, people, you know.” This narrative exemplifies the misunderstanding that without generalizability, research findings are not meaningful. However, it also highlights Luke’s general mistrust of anyone willing to make broad
statements on the climate of policing based on research, separating him from these academics and policymakers who do so. This also reaffirms the very individualized or geographical nature of misconduct as purported by participants in the previous chapter by arguing that any finding from any singular area or agency cannot be used to explain policing more broadly, and especially cannot be used to advocate for nationwide reform.

Similarly, when discussing the use of post-training surveys, Nick expressed significant concern with utilizing attitudes or cognitions as a source of data – “Do you feel like’ - you feel - And this is when we get into trouble, right? ‘Well, I feel…’ Okay, well, what about data?” Here, Nick makes the assumption that how people feel is not true data. This allows him to undermine any qualitative research or surveys that explore how people feel about policing if not truly rooted in numeric outcome “data.” Again, this strategy allows officers to utilize their understanding of research methods to undermine and delegitimize the efforts of scholars as outsiders who do not belong in efforts to reform (or even understand) policing. This effort of undermining research findings seeks to further the distancing mechanisms officers often engage in – negative research findings do not mean anything about these participants and their peers if they did not come from “real data” or from the specific subset of officers with whom they most identify (i.e., those who do not engage in misconduct).

These qualms about social science research as it is currently practiced and the “outsider” nature of the academics who conduct this work also led to several recommendations that carve out the notion that policing is unique and therefore beyond the scope of research and related calls for change. For example, despite being in a qualitative interview within the context of a contracted program evaluation, officers repeatedly reported feeling unheard in the research process and argued that many research questions do not incorporate their perspectives. Providing
the researcher with suggestions for new areas of inquiry, Nick went on to suggest content
analysis of body-camera footage, without awareness that such literature exists and has been
explored as a key form of empirical insight (Chillar et al., 2021; Voigt et al., 2017; Willits &
Makin, 2018):

Maybe you could do with the body camera video. Yeah. So use
some of these programs now that will analyze the language. Yeah.
And then you could see like, I would look for the specific language
captured in the program…Did that language occur before the study
versus the language after the study…. those are the things I think
that you could measure. Yeah. And you could do before and after,
and you could point to this specific program. When, you know, the
officers are doing some of the things they learned?

These recommendations and general disregard for the use of research findings to make larger
statements about policing represent the distancing strategy of officers by reaffirming that
outsiders (academics) cannot truly understand or properly interpret findings without having this
insider experience included. The nature of policing is special, this argument claims, and will
continue to produce primarily good officers and good departments. Officers utilize their
academic knowledge to suggest changes to academia, but conversely, they do not believe in
academics suggesting changes to policing.

While many of these officers reported a college education, it is evident that many of
them, regardless of education status, do not believe in the validity of quasi-experimental design
and qualitative work in helping answer questions within their field. As such, these quotes
highlight a clear discrepancy between perceived knowledge of, and belief in, the usefulness of
the research methodologies that inform evidence-based policing. These qualms regarding
academic evaluations of police training and other programs reaffirm their broader distancing
strategies and refusal to acknowledge the institution of policing as a monolith or entity that can
be studied in any generalizable way. Given that these officers expressed deep-rooted beliefs
about their separation from other officers who need the greatest amount of reform (i.e., bad apples or overtly biased organizations/areas), this nullifying of academic work seeks to delegitimize any negative findings related to police training or outcomes.

Through the interview process, officers explored NDTC’s training, police training more broadly, and the use of academic scholarship to inform these programs. While they were willing to admit enjoying NDTC’s program and believed it to be thoroughly useful, they continued to do so in ways that further the narrative that widespread police training reform is not necessary. Participants were able to construct this narrative by invoking several strategies, including reinforcing their role as one of the “good” officers who already utilizes these de-escalation skills; emphasizing that said training would most benefit more junior officers who are in the greatest need of behavioral change; and then, seeking to dismantle the academic scholarship that informs outsiders’ beliefs that said trainings should be implemented extensively to combat systemic misconduct.

These strategies allow officers to express support for NDTC’s program without having to concede that these wider calls for systemic changes to how police engage in use of force are valid. The data suggests that participants support NDTC’s individual curriculum and encourage its expansion but are simultaneously able to cognitively separate this specific program from larger efforts towards reform. Officers who view this training as an additional “tool in the tool belt” can support training programs such as NDTC’s so long as no suggestion is made to get rid of the pre-existing tools in the belt. Participants shared the value of training in 1) supplementing their own, “correct” behaviors and 2) providing a more appropriate practice for younger recruits but did so without making the connection between widespread calls for reform and the presence of this program in their area. In addition, in negating the power of academic studies that show a
pervasive problem within policing, and pinpointing those officers who need the greatest amount of behavioral change (young officers, and those in “other” geographic regions), officers remain steadfast in their ability to deny the need for systematic reform of a systemic problem of misconduct in the policing profession. While officers enjoy the training and feel the learned skills are beneficial in their practice, this dismantling of the legitimacy of calls for change allows them to support the program without also needed to concede to the underlying reasons as to why such trainings are becoming increasingly more popular.
CHAPTER 8: DISCUSSION & CONCLUSIONS

The current study analyzed the attitudinal and behavioral outcomes associated with exposure to personality-based de-escalation training as offered by the National De-escalation Training Center (NDTC). Specifically, this research evaluated the predictive effects of demographics and pre-training attitudes on behavioral outcomes as indicated by a training simulation, assessed changes in attitudes and skills resulting from training exposure, and studied the moderating effects of the program on the predictive effects of attitudinal change. In addition, qualitative methods, including ethnography and semi-structured interviews with trainees, were utilized to further understand the nuance of officer cognitions related to training and wider public calls for reform.

This chapter summarizes the quantitative and qualitative findings associated with the project regarding the behavioral and attitudinal change of officers trained by the National De-escalation Training Center. As a result of these findings, the implications for NDTC’s training program and curriculum development are also explored. This assessment also includes the limitations of the current study and methodological recommendations for improving future research towards understanding the long-term impact of NDTC’s program. Lastly, the broader implications for policing policy and practice are considered.

Quantitative Findings

The initial proposal for this research asked four quantitative research questions utilizing secondary data that was regularly collected as part of NDTC’s normal training procedure. These questions sought to further the extant literature regarding the role that in-service training programs play in improving officer attitudes toward procedural justice concepts and strategies used during citizen interactions (Bolger, 2015; Engel et al., 2022a; 2022b; Giacomantonio et al.,
2020; Goh, 2021; Paoline & Terrill, 2007; White et al., 2021b). While only three of these research questions could be answered, the current chapter explores all available findings and the limitations of secondary data and collaborative efforts with police agencies.

**Demographics, Attitudes, and Training Performance**

The first quantitative research question sought to explore the effects of training at an individual officer level, particularly with regard to how pre-existing attitudes towards procedural justice and individual demographics inform performance in the training simulations. It was hypothesized that women, officers with higher education, and those with more positive pre-training attitudes towards procedural justice concepts would perform better in the final training simulation (Paoline and Terrill, 2007; Rosenbaum & McCarty, 2016; Schuck & Rabe-Hemp, 2005; Stickle, 2016). To answer this question, pre-training surveys, which included demographic information and several Likert-scale procedural justice attitude questions, were used to predict final training simulations scores, on which officers were graded on their ability to correctly identify the displayed personality type and subsequently respond appropriately and effectively in their de-escalation strategy. Following the recoding and cleaning of these measures (see Chapter 5), binary logistic regression was utilized to determine the impact of these individual predictors on the appropriateness and effectiveness of their simulation outcome.

Initially, nonparametric tests of differences, including the McNemar and Wilcoxon tests, were utilized to determine if participants improved in their ability to identify the correct personality type and in the appropriateness and effectiveness of their intervention strategy from pre to post training simulations. Three tests confirmed significant differences between pre- and post-training simulations scores. These findings suggest that officers not only learned how to accurately identify the personality types as taught through NDTC’s use of the DISC Esoterica®
model, but they also adapted their de-escalation strategy accordingly. Partial and complete binary logistic regression models were then utilized to determine the impact of demographics and pre-training attitudes on these post-training simulation scores.

First, to determine the appropriateness of simulation intervention, the partial model utilized key demographic variables of interest including Region, training type, gender, race, ethnicity, education level, years at current agency, and type of primary duty. Findings suggest that only exposure to a college education, specifically having some college experience or an Associate’s degree, significantly (p<.05) predicted increased odds of appropriately intervening in the post training simulation. Having some college was associated with over 3 times greater odds of appropriate intervention, while having an Associate’s degree predicted over 12 times greater odds of applying an appropriate de-escalation strategy. The full model, which retained all demographics and incorporated procedural justice composite measures, produced similar results, with only some college (Exp(B) = 3.57) and an Associate’s (Exp(B) = 15.609) having a significant effect (p<.05) on applying appropriate simulation strategies.

Regarding strategy effectiveness, identical models were conducted to evaluate the predictive effects of individual demographics and attitudes. In alignment with the previous models, only education level had a significant effect in both the partial and complete models. In the partial model, having some college, an Associate’s, or a Bachelor’s degree were all significant predictors of applying an effective intervention. In the full model, which then incorporated procedural justice attitudes, only some college and an Associate’s degree remained significant (p<.01), predicting 3.5 and over 20 times greater odds of utilizing an effective de-escalation strategy, respectively.
These findings align with previous literature suggesting that exposure to higher education has a significant impact on officers’ use of force and openness to de-escalation strategies (Paoline & Terrill, 2007; Stickle, 2016). However, the Nagelkerke r-squared values for all models were low (min = 0.099; max = 0.125), suggesting that overall, individual demographics and pre-training attitudes had a limited predictive effect in understanding improvements to de-escalation strategies. As such, findings should be interpreted with caution and further work is needed to understand the other potential variables that may inform these behavioral applications of training material.

**Departmental Use of Force**

Before the study period began, NDTC’s initial data collection plan included agency-level demographics and monthly use-of-force counts in citizen interactions and calls for service. However, very few agencies opted in to this effort. As a result, appropriate analysis could not be conducted regarding agency-level impacts of training. Further consideration of the data sharing barriers and potential future research with such data are explored later in this chapter.

**Attitudinal Change and Training Exposure**

The third quantitative research question explored temporal changes to procedural justice and crisis intervention attitudes among participants. In alignment with limited previous literature, this research question focused on the importance of cognitive change in long-term behavioral outcomes and the power of de-escalation training in police practice (Giacomantonio et al., 2020; White et al., 2021b). Utilizing a series of dependent sample t-tests, the study confirmed the hypothesis that attitudes towards procedural justice concepts, use of force, shared values with citizens, and trust in one’s community all improved from pre- to post-training evaluations. All these composite measures experienced significant improvement at the p<.001 level, reflecting
significant relationships between exposure to NDTC’s training and positive attitudes related to procedural justice and community relations among officers.

Only distrust in citizens did not change significantly from pre- to post-training, suggesting that there may be a higher level of resistance to overcoming the distrust officers are encouraged to build via the “us versus them” mentality so often cited in policing culture (Doherty, 2016; Sierra-Arevalo, 2021; Waddington, 1999; Wolfe et al., 2024). However, given that trust in citizens did improve, these findings are contradictory in nature and more likely reflect the low power of the distrust measure (0.073). Future research on NDTC’s training program should explore the use of these items as true indicators of officer attitudes and utilize more complete analyses to explore the nuance of trust and distrust among officers as it pertains to citizens.

Nonparametric Wilcoxon tests were utilized to confirm these t-test findings given the non-normality of each composite measure. These findings confirmed the results of each dependent sample t-test, providing validity for the findings and reducing the need for concern over Type II errors. In addition to exploring the effects of training on these composite measures, Wilcoxon nonparametric tests were utilized to determine the ways in which officers’ attitudes towards mental illness and the role it plays in criminality changed over the course of the training. Findings suggest that NDTC’s training curriculum, which has a didactic portion dedicated to better understanding significant mental illness, substance use disorders, and medical crises that may inform escalations in behavior, led to significant (p<.001) improvements in trainees’ attitudes towards mental illness and criminality.

Despite the statistical significance of these findings, mean scores on each of these items remained relatively moderate (post-training mean = 3.257 on 5-point scale), suggesting that the
practical implications of this change are likely quite small or that some stereotypes about mental illness still persist. Additionally, the relatively low Cronbach's alpha of the composite measures and limited power of the Distrust measure are cause for caution in interpreting these findings, despite the confirmation of results as informed by the nonparametric tests. Future research should explore the attitudes towards mental illness that may act as a barrier to implementing de-escalation strategies with individuals in crisis.

**Moderating Effects of Training**

The final research question evaluated the moderating effects of training on the relationship between individual demographics and procedural justice attitudes. The initial proposal also sought to explore the relationship between agency demographics and use-of-force, but as mentioned, such data were not provided by enough agencies. To answer the question about the mediating effects of training, several linear regression models were conducted to determine the relationship between demographics and each composite attitudinal measure both before and after training. Paternoster and colleagues’ (1998) equation was then used to determine if these pre- and post-training model coefficients were significantly different. It was hypothesized that training could be a moderator in examining the pre- and post-training relationships between variables.

Prior to training, only years employed had a significant effect on procedural justice attitudes, whereas post-training attitudes were significantly predicted by region location and having some college experience. However, the moderation analysis indicated that only the relationship between years employed and pre- and post-training procedural justice attitudes was moderated by exposure to training. Analyses of shared values, another composite measure of community relations, also revealed predictive effects of demographic variables. Having attended
the five-day training (as opposed to 2-day program) predicted significantly higher pre-training shared values, while identifying as Hispanic/Latino resulted in significantly lower pre-training attitudes. These relationships changed when evaluating post-training attitudes, with Ethnicity no longer being a significant predictor, but training type increasing in its predictive effects. Having a bachelor’s degree or higher also significantly predicted having a greater sense of shared values with the community at the post-training evaluation point. The relationship between a post-Bachelor’s education and having a sense of shared values was significantly moderated by training exposure.

In terms of predictors of community trust, only ethnicity informed participants’ pre-training attitudes, with individuals who identified as Hispanic/Latino scoring about a half point lower on the trust scale. Post-training attitudes regarding community trust were not predicted by any individual demographics. Interestingly, pre-training attitudes regarding distrust of community members did not have a significant relationship with any demographic variables. However, post-training attitudes were significantly predicted by race and education status, with Black trainees having less distrust than their White counterparts, and individuals with an Associate’s degree having greater distrust. These findings are in contrast to what might be anticipated, given that race of the officer was not significant in any other models, and prior literature and previous findings within this study suggest that college education improves one’s openness to procedural justice concepts and improved citizen interactions (Paoline & Terrill, 2007; Stickle, 2016). Neither the relationship between individual demographics and community trust nor distrust were moderated by training exposure in the subsequent analysis.

Lastly, a composite measure of questions related to use of force necessity and the harms of related restrictions was evaluated. At the pre-training assessment, having attended the 5-day
training program and identifying as male both predicted significantly weaker opinions, whereas identifying as Hispanic/Latino predicted significantly stronger agreement that use of force should not be restricted. All three of these predictive relationships remained in the post-training model. Moreover, further analysis suggested that none of these relationships were moderated by training exposure.

These findings suggest that further exploration is needed regarding the role of ethnicity and the relationship between officers and community members. The current findings indicate that officers who identify as Hispanic/Latino have lower levels of trust and a weaker sense of shared values with community members during pre-training evaluations, but not during the post-training assessment. In addition, the direction of the relationship, while not statistically different, between ethnicity and community distrust changed over time. While this may reflect the relatively weak nature of the distrust measure instead of the role of ethnicity, it is still important to consider why these varying procedural justice attitudes seem to be linked to officer ethnicity. Further work should be done to better understand this relationship, its impact on officer interactions, and what role, if any, training can play in addressing these concerns. In addition, the role of race and gender, which has previously been explored in the training and de-escalation literature (McElvain & Kposowa, 2004; Paoline et al., 2018; Schuck & Rabe-Hemp, 2005), were only significant in relation to distrust and use of force, respectively. Further work should be done to explore these nuances, especially considering that this prior work suggests little impact of officer race on escalating encounters and that women often utilize less use of force; this study, however, reported greater resistance among women to use of force restrictions and among officers of color to trusting their community members.
Despite these findings, all results should be considered in the context of the analytic limitations of this work. Primarily, the adjusted r-squared values of every model in this research question were low (min = -.011; max = .057), suggesting that these models explained little of the actual variance in officer attitudes. As such, the relationships as reported must be viewed in light of the limited explanatory value of the models overall. Additionally, the equation from Paternoster and colleagues’ (1998), while deemed to be the most appropriate based on prior literature, was used in this study for dependent rather than independent samples, and therefore additional research should explore the moderating effects of training using independent experimental and control groups. Further limitations and considerations for future work are discussed later in the chapter.

**Qualitative Findings**

The qualitative findings of the current study resulted from 16 semi-structured interviews and 40 hours of field observations of NDTC’s training program. In accordance with grounded theory (Saldana, 2013), no *a priori* hypotheses were made, but rather exploration of the data allowed for themes to emerge organically. Findings support prior literature that suggests police organizations are uniquely resistant to change (Duxbury et al., 2018; Lingamneni, 1979; Mastrofski & Willis, 2010; Schafer & Varano, 2017), reinforce the “bad apples” mentality related to misconduct (Brecher, 2014; Gottschalk et al., 2012; Ivkovic, 2009; O’Connor, 2005), and often have a deep-seated mistrust of nonpractitioners, such as academics and policy-makers (Bacon et al., 2021; Engel & Whalen, 2010; MacDonald, 1987).

Analysis of the interview data suggests that, in response to public outcry for policing reform, officers engage in defensive othering strategies (Schwalbe et al., 2000) to separate themselves from the narratives that police are biased, regularly engage in misconduct, or need
widespread change. To create this degree of distance, officers engaged in several narratives such as reinforcing the notion that only a few bad apples need to be weeded out, as well as creating generational and geographical barriers between themselves/their peers and those officers whose actions paint a negative picture of policing. Specifically, many participants from the Northeast argued that overtly biased policing is a uniquely Southern problem and generally is not something that needs to be addressed within their own region. Participants also argued that both younger and older officers, compared to their own cohort, have unique barriers for engaging effectively with their community. These findings provide insight into the nuances of the “us versus them” strategy often invoked by police organizations (Doherty, 2016; Sierra-Arevalo, 2021; Waddington, 1999; Wolfe et al., 2024). In being able to maintain this status with the public while also creating degrees of separation within policing using generational, geographical, and other indicators of difference, participants shed light on the many cognitive coping processes that they must invoke in defense against widespread national calls for reform.

These strategies highlight the current culture within policing in which officers are encouraged to enforce and maintain systematic avoidance of systemic problems and do so through a distancing of self from any negative representation of police. In pinpointing the skills that make them the good officers and emphasizing the perceived rarity of the “bad apples” and bad departments, the data reflects a more nuanced understanding of police identity in the post-Floyd era and the cognitive and social processes that reinforced the resistant and often, defensive, culture of the American policing system. This work also provides preliminary insight into why training programs such as NDTC may receive significant, positive feedback and buy-in from officers and agencies, while when discussing widespread change in response to misconduct, policing has largely been resistant to such efforts. This discrepancy is not only made visible but
analyzed in this work and highlights the coping strategies officers must use to maintain their beliefs about their job and fellow officers while also viewing successful or helpful trainings as supplementary tools for their repertoire. It is through this defensive othering and separation strategies that officers can both “buy in” to individual training programs or skill development and systematically deny systemic misconduct.

Participants also attempted to defend against calls for change by delegitimizing the individuals at the forefront of these efforts, particularly legislators and academics who study policing. In separating these “outsiders” from those who truly know what is happening in policing (law enforcement officers), participants were able to nullify the grounds on which these reforms stand. Officers also argued that academics are likely to use or skew data to create a negative outlook on policing, and therefore, even empirical evidence in favor of change cannot be trusted. Participants also expanded this argument to program evaluations of training and the use of research methods to understand the impact of these programs on policing. The biased agendas of these outside actors, participants noted, make any related calls for change or enacted reform efforts not only unnecessary, but potentially harmful to policing practices and officer safety. This delegitimizing of outside professionals furthers the uncovering of these cognitive processes of separation that happen among police to find ways to undermine calls for change without completely resisting exposure to new skills they may deem as a useful addition to their repertoire.

Lastly, officers also engaged in this defensive othering when discussing NDTC’s program and training efforts more broadly. Participants separated themselves from the type of officer who is most in need of training related to procedural justice, community relations, and use of force by more specifically acknowledging why they themselves did not need it. When it came to NDTC’s
training program, all participants expressed significant support and encouraged continued efforts to widen the reach of NDTC, but they also repeatedly clarified which “others” would most benefit from this program. In particular, participants focused on recruit-level training and how younger generations struggle to learn interpersonal communication. Additionally, officers also separated themselves from officers who most benefit from additional education by arguing that NDTC’s training program simply reinforced the practices they already chose to engage in. This narrative helps officers both sing the praises of the training while simultaneously denying that they need additional education or behavioral change. This level of analysis on resistance to change within policing may provide new insight into how this resistance is maintained in the face of high-profile instances of misconduct and ever-decreasing public trust in the institution.

Despite the quantitative findings supporting little effect of individual demographics on training outcomes, the defensive othering strategies of interview participants creates a contrary argument that very specific populations of officers need this training most. This discrepancy likely represents the need of officers to make any delineation between themselves and the “bad apples” moreso than a true demographic difference by tenure or geography. When all of policing comes under attack, officers must break down the “us versus them” strategy and create subgroups of the “us” that allow them to deny connections with the officers who engage in misconduct. Utilizing demographics represents the most clear way to do, cognitively, for these officers but the quantitative evidence does not suggest that such a separation exists within police culture. Future work should explore this cognitive strategy and the use of defense othering when directly confronted with such quantitative findings to determine if the undermining of academics/non-practitioners will remain the primary strategy for denying evidence that there is no singular demographic group in need of training.
These themes exemplify the ways in which officers feel they must posture against the recent social reckoning against American policing and differentiate themselves from high-profile instances of police misconduct. Through defensive othering strategies, participants are able to separate themselves from “bad apples” or organizational cultures where bias thrives, as well as from the outsiders (such as academics) who seek to use data to spread false narratives about policing. This analysis supports the findings that officers thoroughly enjoyed and bought in to NDTC’s program, but they also resist any formal, widespread efforts to improve de-escalation strategies of use of force among law enforcement. In conjunction with the quantitative findings, this data also provides a potentially successful strategy for training programs seeking to expand their reach within the policing profession – in claiming separation of their program from the larger calls for change (just another “tool in the tool belt”), these training organizations can increase organizational support from law enforcement without risking association with reform and subsequent defensive strategies from the officers.

Limitations

While these findings generally provide strong initial support for NDTC’s de-escalation training program, several limitations to the data collection and analysis should be considered. As it pertains to quantitative secondary data, the lack of agency-level data created a significant barrier to answering several of the initially proposed research questions. While this was outside the control of the researcher, it is important for future efforts to explore the barrier to data sharing of participating agencies with NDTC staff. In particular, it is vital to understand whether this was the result of the inability of agencies to easily compile demographic data and use-of-force counts, or if it represents a larger disinterest or distrust in sharing such information with academics. The inability to obtain this data and conduct the subsequent analyses significantly
limited the ability of the current evaluation to speak to the “real-world” behavioral effects of the training on officer-citizen interactions.

Limitations also exist in relation to the procedural justice and crisis intervention Likert scale questions utilized in the pre- and post-training evaluations, as well as the composite measures of these questions created through factor analysis. First and foremost, the wording of some questions included in these measures do not align with the Likert scale offered, and therefore, may not have been answered accurately by participants. In particular, the two questions regarding mental illness ask participants to indicate on a scale of 1 to 5 the extent to which they agree with each statement, but the statements ask if a person with mental illness “is more or less likely” to engage in specific behaviors. This wording does not allow for a clear understanding as to whether participants are reporting agreement that persons with mental illness are more or less likely to engage in violence/criminal behavior. As such, these questions should be reworded by NDTC staff to indicate a clear direction for participants to express their agreement.

In addition, while factor analysis conducted in the current study resulted in four distinct composite measures (procedural justice, distrust of citizens, shared values, and use of force), the Cronbach’s alphas of three of these measures were below the typical cutoff in social sciences research (Cronbach, 1951; Nunnally, 1978). The fifth composite measure, which was created by combining the two items that did not load during the factor analysis, had a Cronbach’s alpha similar to these other measures in that it was slightly below generally accepted cutoffs. While all other diagnostics of these measures, such as skew and kurtosis, were adequate, the low reliability of these composite measures means that findings must be interpreted with caution. The low shared variance among the items in each composite measure suggests that these items may not
accurately measure the composite concepts, despite factor analysis results. As such, future work
should explore the extant literature and existing surveys regarding procedural justice attitudes to
determine if there are more appropriate, validated items that can be utilized to measure officer
perceptions. This would help inform the development of NDTC’s curriculum and future
evaluation efforts of officer attitudes and the role of training in reaffirming procedural justice
knowledge.

It is also important to acknowledge the subjective nature with which simulation
performance is measured by trainers. While the simulations scenarios and displayed personality
types are meant to be standardized across all training sessions and regions, trainers are still
tasked with subjectively determining the effectiveness and appropriateness with which each
participant applies their de-escalation strategy based on the displayed personality type. This
subjective measure may have impacted findings related to behavioral outcomes associated with
training. NDTC’s leadership should seek to further the training that trainers receive in how to
interpret simulation behaviors and/or create more objective measures of performance.

The final major quantitative limitation is reflected in the analysis of the fourth research
question. The OLS regressions included in this question, to determine the relationship between
individual demographics and procedural justice attitudes, resulted in low adjusted r-squared
values. This means that little of the variation in these attitudinal measures was explained by the
variables included in the model. As such, it is evident that these demographic variables are not
necessarily key indicators of policing attitudes, and further work should be done to understand
what may inform officers’ relationship with procedural justice and crisis intervention concepts.
Relatedly, the Paternoster and colleagues (1998) equation utilized in this research question is
meant to compare regression coefficients between independent samples and subsequently
determine moderating effects. Given that the current study utilized a dependent sample comparison of pre- and post-training attitudes, caution should be given to the results. However, consideration of other equations used to assess differences in regression coefficients, such as those presented by Clogg and colleagues’ (1995) to examine the coefficients of nested regression models, did not generate a more suitable equation.

In addition to the limitations of the quantitative work, several considerations should also be made when interpreting and utilizing the qualitative results. First, the final sample of 16 participants (15 law enforcement and 1 civilian) did not meet the initial recruitment goal of 20 trainees. While protocol was developed to encourage participation, including one introductory email and two follow-ups per trainee, in-person recruitment at localized sites, and support from trainers encouraging participants to sign up, there may have been several additional barriers to recruitment. These may have included the intensive nature of policing work, spam filters on governmental email addresses, or the general distrust of academics as highlighted in the current findings and prior literature. However, the makeup of participants still reflects a relatively representative sample and diverse array of law enforcement positions and roles that allow for a more nuanced analysis of policing experiences.

The positionality of the researcher is also an element of research that must always be considered. Given my role as both an academic studying police reform and having many relationships with law enforcement in my personal life, I was uniquely situated to experience nuanced emotions and cognitions related to the narratives shared by participants. To mitigate the impact this may have had on my analysis, I engaged in extensive post-interview memo writing, which provided me the opportunity to explores the thoughts and feelings I may have had during an interview, and I made sure to complete all interviews before attempting analysis to ensure a
recency effect was not occurring. However, it is important to acknowledge my positionality in this work as both an outsider to policing and an insider through personal relationships, which will inform the shared meaning and experiences produced during the research process and in collaboration with participants.

Relatedly, participants may have engaged in posturing for me during the interview process, either to appear in a more positive light (i.e., social desirability bias) or because of the hesitancy/resistance police may have in working with academics. While this is always a possibility given the nature of qualitative work, this only furthers the validity of the current analysis, which suggests that police engage in these posturing strategies to separate themselves from the problems within policing and the need for training that were being discussed during the interviews. In working with an academic, it may have been possible that participants sought to portray a specific image of themselves, but this again furthers the academic arguing that the gap between practitioners and non-practitioners has not been fully bridged. As such, while caution is needed when utilizing any findings to inform policy or practice, proper protocols were put in place to ensure that meaningful and accurate findings were still pulled from this data.

**Implications for Policy & Practice**

The current research results have significant implications for NDTC’s program development and for the broader role of de-escalation training for law enforcement. The findings of this evaluation suggest that both attitudinal and behavioral change are feasible outcomes from this training program, with officers generally improving in their agreement with procedural justice concepts and ability to de-escalate a citizen encounter based on the identified personality type, as explored in training. These findings support NDTC’s continued use of the current curriculum and the effectiveness of the DISC Esoterica® model. The National De-escalation
Training Center should continue to utilize this unique and interactive curriculum to further the understanding of law enforcement regarding how psychology, mental wellness, and the concepts of procedural justice theory inform their interactions with the public.

Findings also suggest that demographics play a relatively small role in these attitudes and the ability to de-escalate appropriately and effectively. The current research found that exposure to higher education was the only significant indicator of behavioral outcomes in the training simulation and was a predictor of several post-training attitudes. Furthermore, the effect of having a post-Bachelor’s education was moderated (strengthened) by training exposure. These findings affirm prior literature that higher education may inform officers’ use of force and community interaction (Paoline & Terrill, 2007; Stickle, 2016), and as such, contribute to this growing body of literature. In addition, this provides support for the exploration of the effects of higher education and the role it plays in hiring expectations for law enforcement. As jurisdictions explore ways to improve the professionalism and interactional practices of law enforcement, the necessity of educational requirements and adapted practices have played a significant role in these conversations (Bouffard & Armstrong, 2020; Levin & Cumberbatch, 2023; Mosca, 2023; Ziegler, 2020). Therefore, the findings of this evaluation provide initial support for the role of exposure to higher education in fostering a greater willingness to retain and implement new behaviors and attitudes.

In alignment with prior literature (Fryer Jr., 2019; Jetelina et al., 2017; Lawton, 2007), race played very little role in predicting attitudes or behaviors related to use of force or effective de-escalation strategies in the current study. Race was only significant as a predictor of distrust, with officers who identify as Black reporting lower distrust scores, whereas identifying as Hispanic/Latino predicted having less trust in citizens to do the right thing. While the current
findings support the previous scholarship indicating race and ethnicity have little effect on these types of perceptions, caution must be taken when exploring the outcomes associated with the distrust and trust measures, based on the low Cronbach’s alphas.

Overall, the current findings strongly support the continued use of de-escalation training such as NDTC’s program for all in-service officers, as individual demographics had little impact on the extent to which officers retain and internalize perceptions and skills. This is a promising continuation of available literature, in that all participants may have equal opportunity to learn from, and change their behaviors as a result of, these types of in-service training, regardless of prior life experience or demographic background. The use of participant data from several states across two Regional Centers also contributes to the available literature and provides the first multi-agency attempt at understanding the training’s impact.

Lastly, the quantitative and qualitative findings of this work suggest that significant cultural barriers still exist in creating effective relationships between academics and practitioners. This was evident through both the lack of administrative agency-level data shared by participating organizations as well as through the narratives shared by interviewees regarding the potentially harmful role that academics and other “outsiders” may play in police reform. Academics, legislators, and police leadership should consider and investigate these barriers and seek to understand ways to bridge the gap between lived experience and aggregate data of policing outcomes.

The National De-escalation Training Center should also utilize these findings to inform curriculum development and any changes to standard operating procedures. Given the promising effects of the program on creating attitudinal and behavioral change, organizational leadership should continue to foster relationships with statewide standards and training commissions within
their respective Regions, to further the exposure of recruits and in-service officers to this program. While this work has already begun, the current findings may be used to support this effort and inform the involvement of state and local agencies in this training. NDTC should also explore the aforementioned limitations of this work by adapting attitudinal procedural justice questions to align with previous literature and indicate agreement in only one direction.

The organization should also seek to create a more objective measure of training simulation performance. While the scenarios and presented personality types are standardized, the nature in which trainers must subjectively determine the extent to which trainees apply appropriate and effective intervention may hinder a more comprehensive look into training outcomes. Exploration of a more objective performance measure by NDTC leadership or incorporating practice of these protocols into the Train-the-Trainer model would be a significant step in improving both the program itself and the possible data collection and analysis of its efficacy.

Future Research

The current program evaluation contributes to the available scholarship by furthering the knowledge of the impact of de-escalation and use-of-force in-service training by providing a multi-agency, cross-Region look at training outcomes. These findings represent the first study of its kind to evaluate a de-escalation training program across multiple agencies at once. The promising results of this work also create space for furthering this line of inquiry and avenues of future research. This work should continue to be done in collaboration with NDTC’s Research Coordinator and administrative leadership to create lasting improvements to the curriculum and program implementation as well as to further the methodological rigor with which future evaluations could be done.
Future research to evaluate NDTC’s program specifically should focus on collecting agency-level data to better understand the effects of agency-level demographics on officer outcomes. In providing a more holistic understanding of the officers’ workplace culture, this data would inform the relationships seen between individual-level indicators and attitudinal and behavioral change. Additionally, if NDTC could explore more extensive data sharing as it pertains to participating agencies’ monthly use of force counts, future analyses could provide insight into the “real world” impact of training on citizen encounters. Prior randomized control trials (Engel et al., 2022a; 2022b) suggest that this high-level de-escalation training can reduce officer and citizen injuries, and as such, further exploration of the effect of NDTC’s program specifically would help greatly inform future participant and institutional buy-in. Similar efforts should be made by NDTC’s research and administrative staff to conduct a randomized control trial (RCT) with agencies who agree to go “all in” and train all patrol staff in NDTC’s program. Several agencies have committed to this complete training protocol, and new agencies who opt in to this process should be utilized as a natural opportunity for exploring causal effects.

The need for agency data to complete these vital tasks in understanding the real-world efficacy of NDTC’s program should be prioritized, and if barriers persist, additional research should explore the relational or data-driven variables that contribute to this problem. Determining whether the lack of agency data stems from a mistrust of academics with said access or the inability of agencies to efficiently compile this level of data will provide significant insight into how to improve data sharing and the role of participant-oriented research in policing. Other smaller projects for understanding the effects of NDTC’s training could seek to explore the effects of procedural justice attitudes on overall course evaluations, or simply whether pre-existing attitudes towards these concepts inform how people perceive the class as a whole.
Lastly, as the sample of participants grows to allow for more complex analyses, further work could delve into the interactional relationships between Region, agency demographics, and individual characteristics, and if these interaction terms provide a more nuanced understanding of attitudinal and behavioral change.

In addition to NDTC’s specific program development, the key findings of this work further the idea that higher education plays a role in the ability of officers to accept community-oriented ways of thinking about police work and implement new strategies for reducing use of physical force. This, in conjunction with previous literature (Paoline & Terrill, 2007; Stickle, 2016; Terrill & Mastrofski, 2002) indicates that additional work is needed to determine the true nature of this relationship - is the effect of higher education a direct causal impact of the curriculum and andragogical education received, or does the socialization with a more expansive and diverse community in the college setting inform a correlational relationship that is representative of this interpersonal growth? Such work is needed to better understand the impact higher education seems to have on individual officer outcomes and how, if at all, these data should be used to impact hiring practices and standards for American police.

In sum, this program evaluation of the National De-escalation Training Center provides promising support for the effects of the curriculum on improving officer attitudes and behaviors around procedural justice and use of force across agencies and locations within the United States. Results indicate that officers utilized the learned strategies and personality assessment skills to adapt their de-escalation strategies and improved in their overall attitudes regarding the importance of procedural justice when interacting with the community. While implications for citizens interactions could not be explored with the current data, this evaluation supports the work of NDTC in contributing to meaningful change among law enforcement officers.
nationwide. This research furthers prior de-escalation training literature and lays the groundwork for additional scholarship and strategies for police reform. This body of literature and academic efforts towards police reform should also be utilized to inform improvements to police practice and serve as an opportunity for officers to feel heard and bridge the gap between these practitioners and the people they serve. In today’s sociopolitical climate, it is of the utmost importance that this work continues to create a stronger, more professional police force and rebuild the American public’s trust in our public safety institutions.
FUNDING ACKNOWLEDGEMENTS

This study was funded by the National De-escalation Training Center as part of a dissertation scholarship awarded to the author. These funds were available as part of a larger grant provided by the U.S Department of Justice, Office of Justice Programs, Award #15PBJA-22-GG-00109-BRND, CFDA# 16.753.
APPENDIX A: Standard Pre-Training Assessment

What law enforcement agency do you work for?
________________________________________________________________

What are the last five digits of your personal cell or home phone number? Not your agency- or department-affiliated number. ____________________________________________

This will be used to associate your responses to the following questions to questions at the end of the training. This information will not be shared with individual law enforcement agencies departments, nor will it be used to identify your specific responses.
________________________________________________________________

What is your gender?
○ Male
○ Female
○ Other / Prefer not to disclose

Which of the following best describes your race and ethnicity? Select all that apply.
○ White/Caucasian
○ African American
○ Asian
○ Pacific Islander
○ African / Middle-Eastern
○ Native American / Indigenous

Are you Hispanic or Latino?
○ Yes
○ No

What is your education level?
○ High school diploma or GED
○ Some college
○ Associate's Degree
○ Bachelor's Degree
○ Post-bachelor education

How many years have you worked for your current law enforcement agency?
________________________________________________________________

Have you ever worked at a different law enforcement agency?
○ No
○ Yes
If yes, how many years have you been a sworn law enforcement officer (e.g., police officer, deputy, constable, etc.)?

________________________________________________________________

How would you best describe your primary duties?

- Patrol
- Investigations
- Special focus - gang, juvenile, drug, etc.
- Administration
- Jail/Corrections
- Other

What is your rank within the agency?

________________________________________________________________

Please answer honestly based on how much you agree or disagree with the following statements concerning your department's relationship to your community.

Your responses will be anonymous and individual answers will not be reported to individual agencies.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to give everyone a good reason why officers are stopping them, even if there is no need.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>If citizens ask officers to explain their actions towards the citizen, the officer should stop and provide the explanation to the citizen.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>When dealing with citizens’ concerns, officers need to explain what will happen next, when they are done at the scene.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>It is important that officers appear neutral in their application of legal practices and procedures.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Listening to citizens, and addressing their concerns, is an effective way to gain control of a situation.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>
Officers should always be perceived to have a sincere interest in what citizens say.

Officers should treat all citizens with dignity and respect.

It is important that officers remind people they have rights and that officers appear to follow them.

Law enforcement officers have enough trust in the public for them to work together effectively.

Officers should treat citizens as if they can be trusted to do the right thing.

Please answer honestly based on how much you agree or disagree with the following statements concerning your perceptions of the community and use of force policy.

Your responses will be anonymous and individual answers will not be reported to individual agencies.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers have good reason to be distrustful of citizens.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>It is naive to trust citizens.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Officers and citizens have the same 'sense of right and wrong'.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Generally speaking, most people are on the side of the law when it comes to what is right and wrong.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>There are examples where an officer was clearly justified in exceeding the use of force continuum.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Use of force laws leave officers no discretion.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Use of force laws continually put officers at risk.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

What are your thoughts about the relationship between your law enforcement agency and your community?
Please select an answer based on how likely you believe the following situations occur.

<table>
<thead>
<tr>
<th></th>
<th>Extremely unlikely (1)</th>
<th>Somewhat unlikely (2)</th>
<th>Neither unlikely nor likely (3)</th>
<th>Somewhat likely (4)</th>
<th>Extremely likely (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is a person with a mental illness more or less likely to display outwardly-aggressive behavior when compared to a person who does not have a mental illness?</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Is the average person with a mental illness more or less likely to commit a violent crime (i.e., assault/battery, sexual assault, murder)?</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

What is your community's level of support for individuals with a mental illness?
- Extremely weak
- Somewhat weak
- Neither weak or strong
- Somewhat strong
- Extremely strong

Do you agree or disagree with the following statement: De-escalation training provides officers with valuable tools for citizen encounters.
- Extremely inappropriate
- Somewhat inappropriate
- Neither appropriate nor inappropriate
- Somewhat appropriate
- Extremely appropriate

Please explain:
________________________________________________________________

Have you ever had de-escalation training before?
- Yes
- No

If yes, what type of de-escalation training have you had? Please include the year, if possible.
________________________________________________________________
Have you ever participated in crisis intervention training before?
  o  Yes
  o  No

If yes, what type of crisis intervention training have you had? Please include the year, if possible.

________________________________________________________________

If yes, are you currently assigned to a Crisis Intervention Team?
  o  Yes
  o  No
APPENDIX B: Pre- and Post-Training Assessment

Agency name
______________________________________________________________

Training Date
______________________________________________________________

Trainee Identification number (last 5 digits of personal phone number)
______________________________________________________________

Does the trainee recognize whether the subject is in an active or passive state?

  o Yes
  o No

What DISC Personality Type is being displayed by the subject?

  o D - Dominant Direct Demanding
  o I - Influential Inspiring Interesting
  o S - Supportive Steady Sweet
  o C - Cautious Competent Conscientious

What DISC Personality Type did the student identify?

  o D - Dominant Direct Demanding
  o I - Influential Inspiring Interesting
  o S - Supportive Steady Sweet
  o C - Cautious Competent Conscientious

Was the intervention the student implemented appropriate for the personality type displayed?

  o Inappropriate
  o Correct on one dimension (task versus people-oriented; introverted versus extroverted)
  o Correct on both dimensions

Was the intervention the student implemented effectively?

  o Not effective at all
  o Slightly effective
  o Moderately effective
  o Very effective
  o Extremely effective
APPENDIX C: Post-Training Course Evaluation

What law enforcement agency do you work for?

________________________________________________________________

What is your trainee ID number that you created for this course?

________________________________________________________________

Who were the instructors for your course?

________________________________________________________________

What is your rank?
  o Line Officer (1)
  o Mid-level Supervisor (2)
  o Executive (3)
  o Non-sworn (4)

What was the level of effort that you put into the course?
  o Terrible (1)
  o Poor (2)
  o Average (3)
  o Good (4)
  o Excellent (5)

Before taking this course, I would rate my knowledge, skills, and abilities in de-escalation as:
  o Extremely low (1)
  o Low (2)
  o Moderate (3)
  o High (4)
  o Extremely high (5)

After taking this course, I would rate my knowledge, skills, and abilities in de-escalation as:
  o Extremely low (1)
  o Low (2)
  o Moderate (3)
  o High (4)
  o Extremely high (5)
Please answer honestly based on how much you agree or disagree with the following statements concerning your department's relationship to your community.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to give everyone a good reason why officers are stopping them, even if there is no need.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>If citizens ask officers to explain their actions towards the citizen, the officer should stop and provide the explanation to the citizen.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>When dealing with citizens’ concerns, officers need to explain what will happen next, when they are done at the scene.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>It is important that officers appear neutral in their application of legal practices and procedures.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Listening to citizens, and addressing their concerns, is an effective way to gain control of a situation.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Officers should always be perceived to have a sincere interest in what citizens say.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Officers should treat all citizens with dignity and respect.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>It is important that officers remind people they have rights and that officers appear to follow them.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Law enforcement officers have enough trust in the public for them to work together effectively.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Officers should treat citizens as if they can be trusted to do the right thing.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>
Please answer honestly based on how much you agree or disagree with the following statements concerning your perceptions of the community and use of force policy.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers have good reason to be distrustful of citizens.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>It is naive to trust citizens.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Officers and citizens have the same 'sense of right and wrong'.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Generally speaking, most people are on the side of the law when it comes to what is right and wrong.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>There are examples where an officer was clearly justified in exceeding the use of force continuum.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Use of force laws leave officers no discretion.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Use of force laws continually put officers at risk.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

Please select an answer based on how likely you believe the following situations occur.

<table>
<thead>
<tr>
<th>Situation</th>
<th>Extremely unlikely (1)</th>
<th>Somewhat unlikely (2)</th>
<th>Neither unlikely nor likely (3)</th>
<th>Somewhat likely (4)</th>
<th>Extremely likely (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is a person with a mental illness more or less likely to display outwardly-aggressive behavior when compared to a person who does not have a mental illness?</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Is the average person with a mental illness more or less likely to commit a violent crime (i.e., assault/battery, sexual assault, murder)?</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>
What is your community's level of support for individuals with a mental illness?
  - Extremely weak (1)
  - Somewhat weak (2)
  - Neither weak nor strong (3)
  - Somewhat strong (4)
  - Extremely strong (5)

Please rate the following statements about the course's content:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>No opinion (3)</th>
<th>Agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The training objectives and outcomes for the course are explicitly stated and understandable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The course provided the knowledge and skills I need to accomplish the job for which I am receiving training.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials are presented in realistic job scenarios that I can easily transfer to my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Based on the training, I am fully capable of implementing the skills I learned.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The course content is appropriate for someone within my professional field.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The course content is appropriate for someone with my level of experience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall, the course met my needs and expectations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please rate the following statements concerning your instructors for the course.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The instructors were prepared.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The instructors used instructional time effectively.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The instructors demonstrated thorough knowledge of course content.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The instructors were able to answer questions clearly and understandably.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The instructors conducted the course in a skilled and competent manner.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The instructors encouraged student participation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The instructors fostered a positive and stimulating learning environment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The instructors covered all of the course learning objectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall, the performance of the instructors met my needs and expectations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What aspects of the course should be updated (if any)?
- None (1)
- Video files (2)
- PowerPoint (3)
- Manual (4)
- Instructor techniques (5)

What aspect(s) of this course contributed most to your learning?

What aspect(s) of this course, if any, inhibited your learning?
Do you have any suggestions for improving this course?

________________________________________________________________

Are there additional training courses you would like offered related to de-escalation?
  o  No (1)
  o  Yes (2) ______________________________

Would you be willing to discuss your experiences in this training further?
  o  No (1)
  o  Yes - please email me at: (2) ______________________________
APPENDIX D: Standard Agency Data Survey

Agency name


Agency Address (Street, City, State, ZIP Code)


Agency Point of Contact name:


Agency Phone Number:


How many full-time sworn law enforcement officers does your agency employ?


How many full-time civilian personnel does your agency employ?


What type of law enforcement agency do you represent?
  o   Local police department
  o   County sheriff's office
  o   County-wide police department
  o   Other, Please specify: ___________________________________________

What type of community does your agency serve?
  o   Primarily rural
  o   Primarily suburban
  o   Primarily urban
  o   Mix of rural and urban
  o   Specialized jurisdiction (e.g., parks, school, university, highway patrol)

How many promotion levels does your agency have? For example, Officer (1), Sergeant (2), Lieutenant (3), Captain (4), etc.
  o   1
  o   2
  o   3
  o   4
  o   5 or more
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your agency require officers to have a certain level of education?</td>
<td>o  No</td>
</tr>
<tr>
<td></td>
<td>o  Yes</td>
</tr>
<tr>
<td>What is the minimum level of education required of new hires?</td>
<td>o  GED / High School diploma</td>
</tr>
<tr>
<td></td>
<td>o  Some college</td>
</tr>
<tr>
<td></td>
<td>o  Associate’s degree</td>
</tr>
<tr>
<td></td>
<td>o  Bachelor's degree or higher</td>
</tr>
<tr>
<td>How many positions are budgeted for your agency?</td>
<td>_____________________________________________________________________</td>
</tr>
<tr>
<td>How many female officers does your agency employ?</td>
<td>_____________________________________________________________________</td>
</tr>
<tr>
<td>How many non-White or racial minority officers does your agency employ?</td>
<td>_____________________________________________________________________</td>
</tr>
<tr>
<td>How many of your agency's officers are military veterans or members of</td>
<td>_____________________________________________________________________</td>
</tr>
<tr>
<td>the National Guard?</td>
<td></td>
</tr>
<tr>
<td>What is the average age of officers in your department?</td>
<td>_____________________________________________________________________</td>
</tr>
<tr>
<td>Does your agency currently have open positions for a law enforcement</td>
<td>o  No</td>
</tr>
<tr>
<td>officer?</td>
<td></td>
</tr>
<tr>
<td>o  Yes</td>
<td></td>
</tr>
<tr>
<td>How many positions are currently open?</td>
<td>o  1</td>
</tr>
<tr>
<td></td>
<td>o  2</td>
</tr>
<tr>
<td></td>
<td>o  3</td>
</tr>
<tr>
<td></td>
<td>o  4</td>
</tr>
<tr>
<td></td>
<td>o  5</td>
</tr>
<tr>
<td></td>
<td>o  More than 5</td>
</tr>
<tr>
<td></td>
<td>o  More than 10</td>
</tr>
</tbody>
</table>
Has your agency offered de-escalation training since 2016?
   o  No
   o  Yes

What was the name of the training?

________________________________________________________________

What was the focus of the training?
   o  Verbal judo
   o  Procedural justice
   o  Conflict avoidance
   o  Non-lethal or less-lethal force options
   o  Command presence
APPENDIX E: Interview Schedule

I. Introduction
   a. Let’s start at the beginning: why did you decide to enter law enforcement?
   b. What did the initial training look like in the academy when you first started?
      i. What was that transition like for you?

II. Departmental Culture
   a. I want to talk a bit about the overall culture or climate of your department. Do people generally get along? Is there a sense of unity or cohesion?
      i. Do you have a favorite colleague? A least favorite?
         1. What makes them your favorite/least favorite?
   b. What is the level of engagement between admin/leadership and patrol?
   c. What is the culture like compared to other places you’ve worked? Other departments? Similarities and differences?
   d. How long have you been working there and has it changed over time?

III. Training and Other Changes
   a. Now I want to shift to your department’s culture or attitude towards change. Can you think of any departmental initiatives directed at addressing the culture of the department? Is this something you and your colleagues talk about?
      i. Do you all talk about concepts such as procedural justice and de-escalation outside of attending trainings like this?
   b. What is the general mood in your department regarding national calls for change in the field of policing? (For example, defunding movements, discussions about qualified immunity, etc.)?
      i. *May also probe about local initiatives.
   c. What have been some responses by your department to recent national and local calls for change in the field of policing? In other words, has your department discussed and/or attempted to address some of these concerns?
      i. What do you believe is the appropriate response of law enforcement to these social movements, such as de-escalation and use of force concerns?
         1. Do you believe the changes (be specific) being requested by society are feasible? Why/why not?

IV. Future of Policing and Procedural Justice
   a. What do you think you’ve learned about procedural justice and/or de-escalation from this training?
   b. What do you think about the usefulness of procedural justice to policing?
   c. What do you think about the usefulness of de-escalation training to policing?
   d. Is there value in researchers studying policing?
      i. Is this kind of research into policing helping or hurting the profession in your opinion? Why?
   e. Do you notice a difference in training you receive from academics/researchers versus training received from other law enforcement professionals?
   f. What are the biggest challenges you believe are facing the profession?
      i. Subsequently, what do you believe is the best solution for addressing them?
REFERENCES


Berger, R. (2015). Now I see it, now I don’t: Researcher’s position and reflexivity in qualitative research. *Qualitative Research, 15*(2), 219-234.


https://www.policeone.com/Officer-Safety/articles/455355006-Does-de-escalation-endanger-police-officers-or-save-lives/


https://www.nber.org/papers/w26774


Hutchinson, D. (2022, May 9). Las Vegas man gets disorderly conduct ticket for scaling Renaissance Center in Detroit. *Click on Detroit*.


IADLEST. (2021). *National Decertification Index: Do you really know who you are hiring?*

https://www.iadlest.org/Portals/0/Files/NDI/NDI%20brochure%20May%202021.pdf?ver=An102hIMM7RbA1NnZideMg%3d%3d

IBM. (2024, February 8). One-sample Kolmogorov-Smirnov test. *IBM Analytics*.


IBM Analytics. (2016). *A glimpse inside the mind of a data scientist* [White paper]. IBM.

https://www.ibm.com/downloads/cas/W6GEX9LL.


https://www.policemag.com/342333/are-de-escalation-policies-dangerous.


https://www.policeforum.org/assets/icattrainingguide.pdf


https://doi.org/10.1177/1948550620916071


https://doi.org/10.1037/0022-3514.57.5.830


"Samantha Tosto Dissertation FINAL" History

Document created by Simone Heirs (sheirs@newhaven.edu)
2024-05-07 - 1:27:53 PM GMT- IP address: 192.132.64.3

Document emailed to David Myers (dmyers@newhaven.edu) for signature
2024-05-07 - 1:30:56 PM GMT

Email viewed by David Myers (dmyers@newhaven.edu)
2024-05-07 - 1:31:31 PM GMT- IP address: 185.104.139.72

Document e-signed by David Myers (dmyers@newhaven.edu)
Signature Date: 2024-05-07 - 1:35:01 PM GMT - Time Source: server- IP address: 185.104.139.72

Document emailed to Stephanie Bonnes (sbonnes@newhaven.edu) for signature
2024-05-07 - 1:35:04 PM GMT

Email viewed by Stephanie Bonnes (sbonnes@newhaven.edu)
2024-05-07 - 1:35:54 PM GMT- IP address: 104.47.74.126

Document e-signed by Stephanie Bonnes (sbonnes@newhaven.edu)
Signature Date: 2024-05-07 - 1:36:13 PM GMT - Time Source: server- IP address: 79.12.125.173

Document emailed to Lisa Dadio (ldadio@newhaven.edu) for signature
2024-05-07 - 1:36:16 PM GMT

Email viewed by Lisa Dadio (ldadio@newhaven.edu)
2024-05-07 - 1:36:32 PM GMT - IP address: 192.132.64.3

Document e-signed by Lisa Dadio (ldadio@newhaven.edu)
Signature Date: 2024-05-07 - 1:36:47 PM GMT - Time Source: server- IP address: 192.132.64.3

Document emailed to mjsteele2@fhsu.edu for signature
2024-05-07 - 1:36:49 PM GMT
Agreement completed.

Document e-signed by Morgan J. Steele (mjsteele2@fhsu.edu)  
Signature Date: 2024-05-07 - 6:22:33 PM GMT - Time Source: server - IP address: 209.114.118.155

Document emailed to Maria Tcherni-Buzzeo (mtcherni@newhaven.edu) for signature 
2024-05-07 - 6:22:35 PM GMT

Email viewed by Maria Tcherni-Buzzeo (mtcherni@newhaven.edu) 
2024-05-07 - 6:22:53 PM GMT - IP address: 165.123.239.62

Document e-signed by Maria Tcherni-Buzzeo (mtcherni@newhaven.edu) 
Signature Date: 2024-05-07 - 6:23:34 PM GMT - Time Source: server - IP address: 165.123.239.62

Document emailed to Mario Gaboury (MGaboury@newhaven.edu) for signature 
2024-05-07 - 6:23:37 PM GMT

Email viewed by Mario Gaboury (MGaboury@newhaven.edu) 
2024-05-07 - 7:03:18 PM GMT - IP address: 192.132.64.3

Document e-signed by Mario Gaboury (MGaboury@newhaven.edu) 
Signature Date: 2024-05-07 - 7:03:30 PM GMT - Time Source: server - IP address: 192.132.64.3

Document emailed to Nancy Savage (nsavage@newhaven.edu) for signature 
2024-05-07 - 7:03:33 PM GMT

Email viewed by Nancy Savage (nsavage@newhaven.edu) 
2024-05-07 - 7:43:13 PM GMT - IP address: 192.132.64.3

Document e-signed by Nancy Savage (nsavage@newhaven.edu) 
Signature Date: 2024-05-07 - 7:45:01 PM GMT - Time Source: server - IP address: 192.132.64.3

Agreement completed. 
2024-05-07 - 7:45:01 PM GMT