EXAMINING THE IMPACT OF COMMUNITY POLICING ON PUBLIC ATTITUDES

TOWARD FEAR OF TERRORISM, RESILIENCE, AND SATISFACTION

WITH POLICE IN THE FACE OF NEW TERRORISM

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This dissertation examines the impact of citizen's perception of community policing on public attitudes toward fear of terrorism, resilience for a future terrorist attack, and satisfaction with the police in the face of new terrorism. In particular, considering the changing nature of terrorism in recent years as a response to the centralized homeland security efforts, this dissertation attempts to develop our understanding about the extent to which community policing could be a strategy in dealing with terrorism fear among citizens, in building up resilience for future terrorist attacks, and to increase citizens' satisfaction with the police in order to enhance the quality of life in the face of new terrorism. Additionally, this dissertation examines the impact of the variation in the level of community policing implementation on public attitudes toward fear of terrorism, resilience for a future terrorist attack, and satisfaction with the police. Data was collected through an online survey conducted in the cities of Arlington and Frisco, Texas. The survey distributed to the citizens through the Amazon Mechanical Turk (MTurk) platform. These cities were selected based on a community policing scale which was created through the help of the Law Enforcement Management and Administrative Statistics (LEMAS) survey. Results suggest significant association between the citizen's perception of community policing and fear of terrorism, resilience, and satisfaction with the police respectively, highlighting the importance of community policing philosophy as a framework for a comprehensive proactive strategy in response to the existing and ongoing terrorism threat.

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

The main thrust of this dissertation is to provide insight into the structure and

mechanisms of the community policing as well as to examine its impact on public attitudes

toward fear of terrorism, resilience for a future terrorist attack, and satisfaction with the police in

the face of new terrorism. In particular, this dissertation attempts to develop our understanding

about the extent to which community policing could be a strategy in dealing with terrorism fear

among citizens, in building up resilience for future terrorist attacks, and to increase citizens'

satisfaction with the police in order to enhance the quality of life in the face of new terrorism.

Additionally, this dissertation examines the impact of the variation in the level of community

policing implementation on public attitudes toward fear of terrorism, resilience for a future

terrorist attack, and satisfaction with the police, using survey data collected in the two Texas

cities of Arlington and Frisco.

The current study is particularly concerned with the community policing philosophy of

law enforcement for several reasons. Despite the significant resources devoted to community

policing and its popularity in the U.S. and around the world, there is a scarcity of systematic

study about community policing. Moreover, although narrative studies of community policing

suggest its effectiveness in public safety, there has been a few empirical research examining its

impact on the subjects of disorder, crime, and quality of life (Mastrofski, Parks, Worden, &

Albert Jr, 2002; Skogan & Hartnett, 1999; Xu, Fiedler, & Flaming, 2005). More importantly,

unlike the previous studies which focus on the linkage between community policing and crime,

the current study examines the effectiveness of the community policing in addressing the various

effects of new terrorism on individuals. Lastly, under the current economic constraints,

community policing plays a vital role for local governments to improve responsiveness to the growing demands and concerns of the citizens.

First, there is a scarcity of systematic research about community policing. The creation of the Office of Community Oriented Policing Services (COPS Office) as a part of the Department of Justice in 1994 led to the widespread adoption of community policing across the law enforcement agencies in the United States. (Skogan, 2006). The COPS Office has provided grants exceeding $14 billion for the police departments to advance community policing programs since 1994 (Gill, Weisburd, Telep, Vitter, & Bennett, 2014). More than 13,000 police departments out of 18,000 have received funding from the COPS Office to provide training and technical assistance for police officers in order to promote community policing (U.S. Department of Justice, 2017). According to the 1997 Police Foundation survey, 85% of all police departments reported that they used or planned to use community policing (Gill et al., 2014; Mastrofski, Willis, & Kochel, 2007). Despite its popularity during the 1990s, the percentage of police departments adopted community policing declined in the first decade of the 21st century due to the economic recession during this period and the terrorist attacks of September 11, 2001. Although the efforts to adopt community policing programs have lost momentum as the threat to national security presents new challenges, community policing emerges to have received scholarly attention in the last decade as a means to increase police-citizen interaction through collaboration and communication, and even as a strategy for detecting and deterring terrorism. The Law Enforcement Management and Administrative Statistics (LEMAS) survey of 2013 also suggests a significant increase in the number of law enforcement agencies that incorporate a community policing component in their mission statement (Gill et al., 2014). Despite the significant resources devoted to advance community policing and its popularity in the last four

decades, there is a scarcity of systematic study about community policing.

Second, this research seeks the viability of community policing as a comprehensive proactive strategy in dealing with the various effects of terrorism on individuals. Earlier studies of community policing have mostly focused on the relationship between community policing and crime (Xu et al., 2005). This line of research mainly suggests that community policing has a positive relationship with public safety outcomes (Evans & Owens, 2007). In general, they find that community policing has little effect on crime reduction, while it is a significant predictor of citizen satisfaction with police and perception of police legitimacy (Spelman & Brown, 1981; Xu et al., 2005). Yet, this study focuses on the linkage between community policing and terrorism. In particular, this study examines the extent to which community policing can be a strategy in dealing with citizens' fear of terrorism, in building up resilient individuals and communities for future terrorist attacks and to increase citizens' satisfaction with the police in order to enhance the quality of life in the face of new terrorism. Earlier narrative studies of terrorism suggest that since the September 11 terrorist attacks, the nature of terrorist attacks has experienced a significant transformation as a reaction to the centralized homeland security efforts at the federal level. Terrorist groups no longer carry out spectacular attacks backed by sophisticated operational plans. Rather they shift their plans toward the use of individuals to perpetrate attacks. This type of terrorist attacks requires no extended support from organized groups. The terror attacks in Boston, San Bernardino, Orlando, New York and New Jersey are among many examples in recent years that the terrorist groups rely on the use of individuals to carry out these attacks.

Lone wolf terrorists which differ from organized groups have also shown a dramatic increase in the last two decades. The growing number of lone wolf terrorists who commit attacks

without receiving assistance from any organized groups presents new formidable challenges as they are difficult to be traced and prevented. Moreover, terrorist groups have also been adopting a more decentralized organizational structure where the operational authority is diffused. These changes in the nature of terrorist attacks are the direct result of a strategic game between terrorist groups and targeted states. As the Federal government focuses on a more centralized organizational structure in the fight against terrorism, terrorist groups have shown a reaction and adopted a more decentralized organizational structure using the help of technology. Today, more research suggests that community policing is a promising strategy in addressing the terrorism threat (Docobo, 2005; Lieberman, 2009). The COPS Office also supports the use of community policing in counter-terrorism strategies. Community policing improves the capacity of law enforcement agencies for intelligence gathering which is required for a successful response to terrorism (Chapman et al., 2002). Research shows that a significant percentage of perpetrators lives relatively close to the target location for further planning and preparation before carrying out terrorist attack (Smith, Damphousse, & Roberts, 2006). Community policing with its potential enables law enforcement agencies to detect this activity through the information provided by the community and individuals would not be afraid of terrorism and be empowered to be more resilient as they know their abilities to protect themselves from the terrorism threat. It would also increase their satisfaction with the police as they see the efforts of police to provide security.

Lastly, this study focuses on community policing as an effective strategy for local governments to improve their responsiveness to the growing citizen demands and concerns. The current economic constraints and the competition among the local governments highlight the importance of effective programs. Community policing is not only a valuable tool in dealing

with terrorism threat, but also a strategy for local governments to be more responsive to the

demands and concerns of the citizens. The elements of police involvement in the community in

the production of public safety and problem-solving through public engagement makes

community policing an ideal strategy for local governments that plan to enhance their

responsiveness. The conceptual model of community policing is presented in figure 1. The

following research questions have guided this dissertation:

1. To what extent do community policing practices influence citizen's fear of terrorism?

2. To what extent do community policing practices influence citizen's resilience for a future terrorist attack?

3. To what extent do community policing practices influence citizen satisfaction with the police in the face of terrorism?

4. How does the variation in the level of community policing implementation affect citizen's fear of terrorism?

5. How does the variation in the level of community policing implementation affect citizen's resilience for a future terrorist attack?

6. How does the variation in the level of community policing implementation affect citizen's satisfaction with the police?

Figure 1: Conceptual model of community policing

Given the importance of this dissertation and the problem statement, this dissertation attempts to provide a systematic review of community policing. Also, this dissertation empirically examines the impact of community policing on public attitudes toward fear of terrorism, resilience for future terrorist attacks, and satisfaction with the police in the face of new terrorism, using the survey data collected from the two Texas cities of Arlington and Frisco. On the following pages, a systematic review of community policing is provided. Chapter 2, Chapter 3, and Chapter 4 empirically examine the impact of community policing on respectively citizen's fear of terrorism, citizen's perceived resilience for a future terrorist attack, and citizen's satisfaction with the police in the face of terrorism. Additionally, these chapters examine how the variation in the level of community policing implementation influences the public attitudes for the given subjects. Chapter 2 tests the routine activity theory in explaining the impact of the two community policing programs which represent the core of the concept of community policing, namely working with community and community crime prevention, on citizen's fear of terrorism. Chapter 3 uses social capital theory to test whether the two community policing programs influence the resilience of individuals for a future terrorist attack. Chapter 4 utilizes expectation disconfirmation theory to empirically test the impact of the two community policing programs on citizen's satisfaction with the police. The last chapter discusses the major findings and provides implications, contributions, and limitations of this dissertation.

What is Community Policing?

Community policing or community oriented policing (COP) is a philosophy adopted by most law enforcement organizations to varying degrees across the United States (Lieberman, 2009). At its core, community policing provides a framework for proactive problem-solving with the means of collaboration and partnerships with the community (Lieberman, 2009). Though the

concept of community policing has been defined in different ways and experiencing an evolution over time, the Office of Community Oriented Policing Services (COPS), which is structured under the Department of Justice, defines community policing as "a philosophy that promotes organizational strategies that support the systematic use of partnerships and problem-solving techniques to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime" (Gallagher, Kim, Markovic, & Spence, 2016, p. 37). Community policing strategies adopted by local law enforcement agencies can vary, depending upon the socio-demographics of each agency's community and the needs of law enforcement agencies. Yet, the objective of community policing remains the same – "solving problems through collaborative partnerships built on mutual support, trust, and respect based in part on empathy for all points of view and circumstances" (Gallagher et al., 2016, p. 37). As stated in the COPS report (2016), the success of community policing mostly depends on the positive community engagement in a non-enforcement context.

The origin of community policing dates back to the legislation of the 1829 London Metropolitan Police Act by Sir Robert Peel (Lieberman, 2009). This act enabled the creation of the new police force in response to elevated crime rates in England. Peel, who is the first chief of that new police force, came up with nine principles (aka Peelian Principles) to modern policing practices. The nine principles of policing promote strong collaboration and partnership with citizens.

In the United States, policing programs and strategies follow a similar fashion to England's experience. Law enforcement agencies at the municipality level were established by the Civil War. Modernization of the law enforcement agencies began in the 1930s. During that time, police agencies adopted a top-down, hierarchy-based organizational structure. The social

movements of the 1960s resulted in increased civil disorder, crime rates, urban riots, and

assassinations. "Police brutality often led to civil disorder, and some members of the public saw

the police at the forefront of maintaining the status quo of an unjust and discriminatory society"

(Fisher-Stewart, 2007, p. 3). As the police-community relations began suffering, it was realized

that there was a need for community engagement to slow down the widespread crime and

disorder. This, in turn, led to the Community Policing era of the 1970s. Community policing

programs have sprung with the amendment of the Public Safety Partnership and Community

Policing Act of 1994:

> Public Safety Partnership and Community Policing Act of 1994 – Amends the Omnibus
> Crime Control and Safe Streets Act of 1968 (Omnibus Act) to authorize the Attorney
> General to make grants to States, local governments, Indian tribal governments, other
> public and private entities, and multi-jurisdictional or regional consortia thereof to
> increase police presence, expand and improve cooperative efforts between law
> enforcement agencies (LEAs) and community members, and otherwise enhance public
> safety (Violent Crime Control and Law Enforcement Act of 1994) (House Report 103-
> 322, 1994)

Local Governments and Community Policing

Community policing is a proactive problem-solving philosophy, which includes all levels

of government. At the national level, the Office of Community Oriented Policing Services of the

Department of Justice is responsible for advancing community policing practices through

information sharing and funding resources to state and local enforcement agencies. Though,

community policing in the U.S. was initiated for crime reduction purposes, since September 11,

2001, it has become more related to homeland security. Yet, it still includes actors from all levels

of government for effective community policing implementation.

State and local governments also take responsibility for community policing. Although

local law enforcement agencies are mainly responsible for community policing, the state and

local governments are also equally responsible for the successful implementation of community

policing. Because, as its core, community policing requires all stakeholders – police agencies, community members and local government officials, to get involved in the process in order to absorb new elements and develop mutual respect, trust, and support among actors. Moreover, state and local governments can exert influence on law enforcement agencies through the power of organizing departments. Therefore, state and local governments have a direct and indirect influence on the success of community policing.

Most research suggests that community policing has a positive impact on public safety outcomes (Evans & Owens, 2007). In general, research reports that community policing has a limited effect on crime reduction, while it strongly influences citizens' satisfaction with the police and perception of police legitimacy (Spelman & Brown, 1981; Xu et al., 2005).

Despite its numerous advantages, some local governments may not want to get involved in community policing for several reasons such as lack of will to organizational change, inadequate resources, and resistant police culture (Mastrofski et al., 2007). Besides these reasons, Peterson (1981) argues that institutional constraints influence the policy choices available to cities. In other words, unlike the federal government, cities have no power to control their border which in turn necessitate them to engage in policies that improve economic well-being. Thus, as Peterson (1981) maintains, cities are likely to initiate policies that would attract people to move in their borders. In the light of Peterson's argument, some cities may not prefer community policing policies, instead, they pursue policies that yield more taxes and investments. However, as many urban management scholars criticize, Peterson's argument is not necessarily correct (Fainstein & Fainstein, 1983; Jones, 1982). According to the critiques, cities can engage not only in policies that improve the economic well-being but also engage in policies that develop a democratic environment. Community policing in this context can help cities develop a

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democratic environment through collaboration and partnerships with community members as well as increase revenue in the long term through enhancing the public safety which can attract new citizens and investments. In the light of this argument and the reasons for not to get involved in community policing provided by Mastrofski, Willis, and Kochel (2007), challenges of community policing will be discussed in more detail in the following section.

Challenges of Community Policing

Though community policing receives much attention in the United States and abroad, research reveals that it can be very demanding and challenging for several reasons (Greene, 2004; Skogan, 2006). In a study regarding the challenges of community policing, Mastrofski, Willis, and Kochel (2007) identify "traditional impediments to organizational change, scarce resources and a resistant police culture" as major challenges of community policing among many, using data collected from large municipal and county police agencies. They note that getting resources to implement community policing is very challenging for police officers. Oliver (2004) explains that there have been significant cuts in federal grants for community policing programs since September 11, 2001. He comments that the attention has shifted to homeland security. Mastrofski, Willis, and Kochel (2007) confirm that the Office of Community Policing Services has dropped the federal funding for community policing to $3 million in 2005 for the law enforcement departments in their sample. This amount was $666 million in 1998 (Mastrofski et al., 2007). According to this research again, police supervisors find resistant police officers as one of the major challenges they face. Indeed, as Skogan and Harnett (1999) point out, supervisors and police officers can sometimes resist to change brought by community policing.

Police culture is perceived to be a greater challenge for community policing than scarce

resources (Zhao, He, & Lovrich, 1998). Because, decentralized decision-making, for example, is one of the important components of community policing (Skolnick & Fyfe, 1995). Yet, highly centralized police agencies may find it challenging and it may take years for them to change their organizational culture. Community policing also increases police autonomy through job enlargement and/or enrichment, while it calls for citizen participation (Trojanowicz & Bucqueroux, 1990). As Gianakis and Davis (1998) state, centralized, military-based models are mostly closed to citizen participation. Considering the centralized structure of the U.S. law enforcement agencies, Moore (1992, p. 290) comments that "in practice, no department has yet fully implemented community policing as an overall philosophy".

Moreover, such highly centralized police agencies may not compromise with the community they serve on the goals and objectives of the specific community policing programs. After September 11, 2001, some Muslim American communities, for example, struggled to build trust and partnerships with law enforcement agencies (Lyons, 2002). Because they view that Muslim Americans are being unfairly treated. Furthermore, police agencies get Muslim American communities involved in community policing efforts to eliminate violent extremism motivated by al Qaeda, while non-Muslim communities are not targeted in these efforts to address other forms of extremism. Muslim American communities thus may experience difficulty in building trust and support for police agencies. The lack of trust in police agencies makes community policing even more challenging. Because, at its core, community policing relies in large on mutual trust, respect, and support for effective collaboration and partnerships.

How has Community Policing been Used by Local Law Enforcement Agencies?

The local law enforcement agencies have been using community policing programs and strategies to varying degrees over the years, depending on the needs and expectations of the

community being served. The community and law enforcement agency must compromise on the purposes and objectives that they want to achieve through community policing before implementing any strategy. It is suggested that community leaders should clearly express what specific programs the community wants to adopt and determine the expectations from those programs.

A wide array of community policing programs used by many law-enforcement agencies to enhance the police-community relationships, including but not limited to foot and bike patrols, door-to-door visits, neighborhood watch, school-based educational programs, community meetings, and citizen advisory boards. Despite the various advantages of these wide arrays of community policing programs, communities need to think about what they expect to accomplish through such programs as well as the potential costs associated with the implementation of these programs. Moreover, some programs may not work in a community, while others may perfectly work. Ongoing communication between all stakeholders is therefore of critical importance for a successful implementation of community policing.

Community Policing in Public Administration Context

Nicholson-Crotty and O'Toole (2004) state that the administration and management of local law enforcement agencies is unarguably an essential component of public administration. Yet, as they confirm, there has been insufficient research regarding specifically law enforcement agencies in the mainstream public administration with an exception of the works of Wilson (2005; 1978). The new paradigm of community policing which emphasizes collective problem-solving through collaboration and partnerships is an area that needs research with a public administration perspective. Unlike the traditional policing in which "departments are seen by management and by front-line personnel as appropriately isolated from the whims of the

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community" (Nicholson-Crotty & O'Toole Jr, 2004, p. 5), the community policing as an approach describes the importance of collaboration and partnerships between all stakeholders – police agencies, community members, and government representatives, in order to absorb new elements and develop support, trust, and respect for police implementations. With its emphasis on collaboration, partnership, and decentralization, community policing presents similar themes as in mainstream public administration scholarship. More specifically, community policing research is parallel to the promising themes of public administration scholarship, such as managing in a networked world (Milward & Provan, 2000) and the cooptation process for absorbing new elements into managerial decision-making and leadership (Selznick, 1949). In short, community policing research is clearly a very important component of public administration and needs further research with a public administration perspective. Public administration perspective is needed for community policing research because the earlier works on community policing adopt mostly criminal justice and rarely political science perspectives for policy studies. Public administration perspective can add a new perspective on the important themes of managerial performance, collaboration, leadership, networks, and partnerships of community policing.

CHAPTER 2

THE IMPACT OF COMMUNITY POLICING ON FEAR OF TERRORISM

One of the main objectives of terrorism is to spread fear and panic among a targeted population so as to achieve the political, religious, ideological, or social agenda of the perpetrators (Misis, Bush, & Hendrix, 2017). Terrorism accomplishes its goals through the intimidation of societies and governments (May, Herbert, Cline, & Nellis, 2011). Prior to the 9/11 terrorist attacks, people in the United States had relatively little fear of terrorism (Victor, 2006). The terrorist attacks on September 11, 2001 led to major consequences in security policies and reshaped public behavior throughout the United States (May et al., 2011). Perhaps, one of the most significant consequences of the terrorist attacks on the World Trade Center and Pentagon was an unprecedented level of fear among the American citizenry (Misis et al., 2017).

Though fear of crime has received more attention among American citizens and scholars than fear of terrorism, with the rise of terrorist incidents and threats in the last 20 years as well as increased media coverage of terrorism, there has been an increase in the number of publications on the fear of terrorism (Misis et al., 2017). As terrorism has occupied more attention in the media, there has also been an increasing awareness of the American public about the nature of terrorism.

The previous research suggests that both fears of crime and terrorism are similar phenomena in a way that the levels of fear remain high even though the threat of victimization is unlikely. Yet, the level of fear is much greater for terrorism compared to everyday street crime. The levels of fear of terrorism among American citizens have fluctuated over time. According to a Gallup poll in 2015, following the 9/11 terrorist attacks, the percentage of Americans who worried about becoming a victim of a terrorist attack was as high as 59% (Gallup, 2015). Prior to

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2001, the percentage was only 24%. In 2004, the percentage was one of the lowest with 28% (Saad, 2004). In 2015, the percentage of Americans who worried about being a victim of a terrorist attack showed another spike, rising up almost 50%. A possible explanation for such an increase can be attributable to the emergence of the Islamic State of Iraq and the Levant (ISIL) and the growing threat of domestic terrorism (Misis et al., 2017).

Fear of terrorism can have a wide variety of negative consequences on individuals such as psychological and behavioral reactions, including changes in attitudes and behaviors (Butler, Panzer, & Goldfrank, 2003), concern about the future, depression, anxiety (Bleich, Gelkopf, & Solomon, 2003), change in substance use (Stein et al., 2004), and psychiatric morbidity (Galea et al., 2002; North & Pfefferbaum, 2002). It can also have some negative economic consequences such as reduced air travel and tourism (Enders, Sandler, & Parise, 1992; Nellis & Savage, 2012). The different levels of government with dedicated agencies promote counter-terrorism policies to address the various effects of the terrorism threat. It is, therefore, crucial to accurately assess the level of the public's fear of terrorism through an in-depth study dedicated to this subject matter.

This present study, therefore, seeks the viability of community policing philosophy as a comprehensive proactive strategy in dealing with various effects of terrorism on individuals, particularly, citizen's fear of terrorism. Considering the changing nature of terrorism since September 11, 2001 terrorist attacks, this study argues that macro-level homeland security policies are not effective in addressing this growing threat. Community policing with its emphasis on collaboration and partnerships with the community and with its decentralized organizational structure would be more appropriate in countering the effects of the terrorism threat. In the following section, the changing nature of terrorism threat and how community policing would be an ideal counter-terrorism strategy will be discussed in depth.

The Changing Nature of Terrorism and Community Policing

Since 9/11, the threat of terrorism has changed in two primary ways. First, terrorist groups have shifted their strategy away from the spectacular attacks backed by sophisticated operational plans toward the use of individuals to perpetrate attacks without extended support networks. This tactic has been carried out by terrorist groups for many times in the last 15 years. Tamerlan Tsarnaev and Dzhokhar Tsarnaev, who were the plotters of the Boston Marathon bombing, for example, denoted two bombs which resulted in a death toll of 3 people and more than 280 injuries. Similarly, Rizwan Farook and Tashfeen Malik who were the plotters of the mass shooting in San Bernardino, killed 14 people and injuring another 22 people. Recently, Omar Mateen, who is an American-born citizen with Afghan immigrant parents, attempted a mass shooting in Orlando nightclub and killed 49 people and injured 53 people. More recently, Ahmad Khan Rahimi, who was the perpetrator of New York and New Jersey bombings in 2016, was motivated by Al-Qaeda's ideology and injured more than 35 people. Such small-scale attacks are difficult to be detected at a national-level with macro-level homeland security policies.

The notion of lone wolf terrorism, which was first coined by white supremacists Alex Curtis and Tom Metzger in the 1990s, makes it even harder to detect and prevent terrorist incidents before occurring (Bakker & de Graaf, 2011). A lone wolf terrorist is a person who commits violent acts alone, without receiving any assistance from any organized group (Bakker & de Graaf, 2011). Since they do not fit any particular profile, the lone wolf terrorists are especially difficult to trace. It is almost impractical to address this growing threat with federal homeland security policies.

Second, the centralized counterterrorism efforts at the national level have directed

terrorist groups from their sanctuaries to a more decentralized organizational structure where the operational authority is diffused. Again, such a change in terrorism threat makes homeland security policies at the federal level harder to address and respond to terrorist events.

In such an environment, community policing is indeed a valuable tool in countering terrorism. As pointed out by Docobo (2005, p. 1), community policing is very promising in addressing the issues of "crime prevention, intelligence gathering, and information sharing". With its emphasis on collaboration and partnership with the members of the community and problem-solving component, community policing can serve as an apparatus in countering the terrorism threat.

Furthermore, adoption and implementation of community policing increase the awareness of administrators about cultural differences that exist in diverse communities. Benavides (2014) argues that a lack of understanding about cultural differences can create difficulties in the delivery of services. Such a lack of understanding about cultural differences impedes policing services being effective in countering the terrorism threat. Community policing can enhance the cultural competency of public administrators in service delivery through engagement with the public. Benavides defines cultural competency as the process of understanding the needs of people to provide equitable outcomes. Community policing can increase the awareness of public administrators about cultural differences in the delivery of services through developing a shared understanding of community needs. A better understanding of community needs will foster the relationship between the public and administrators and develop a trust environment where it is easier to detect and respond to terrorism threat (Benavides, Alhumaid, & Quainoo, 2011)

Using survey data collected from two Texas cities, this study tests whether two essential community policing practices, namely working with community and community crime

prevention influence citizen's fear of terrorism, using the routine activity theory of Cohen and Felson. In addition, this study examines how the variation in the level of community policing implementation influences fear of terrorism. More specifically, this study tests the difference in the level of fear of terrorism between the citizens living in a city with a greater community policing implementation and the citizens living in a city with a limited community policing implementation. The following section provides a review of the relevant literature on fear of terrorism and community policing. The theory of routine activity is presented next in explaining the relationship between community policing and fear of terrorism among the citizens. Then, data and methodology undertaken to develop this research are described. This study concludes with a discussion of the findings and provides implications for law enforcement agencies.

Literature Review

Terrorism has been defined in a variety of ways. There is no academic consensus on its definition on a national or international level. The lack of a clearly and concisely defined definition of terrorism creates a serious limitation for a consistent operationalization of the phenomenon.

In a study regarding the conceptualization of terrorism, Gibbs (1989, p. 330) defines terrorism as "illegal or threatened violence aimed at human or non-human objects". In another study, Sandler and Enders (2008, p. 1) define terrorism as "the premeditated use or threat of use of violence by individuals or subnational groups to obtain a political or social objective through the intimidation of a large audience, beyond that of the immediate victim". The same variation is also found in governmental definitions of terrorism. The Department of State uses the Title 22 Chapter 38 U.S. Code §2656f subdivision d, which states "the term terrorism means premeditated, politically motivated violence perpetrated against noncombatant targets by

subnational groups or clandestine agents" (United States Department of State, 2018), whereas the Federal Bureau of Investigation (FBI) distinguishes between international and transnational terrorism. International terrorism is defined as "acts perpetrated by individuals and/or groups inspired by or associated with designated foreign terrorist organizations or nations", whereas domestic terrorism is defined as "acts perpetrated by individuals and/or groups inspired by or associated with primarily U.S.-based movements that espouse extremist ideologies of a political, religious, social, racial, or environmental nature" (Federal Bureau of Investigation, 2019)

While there is no consensus on the definition of the concept of terrorism, Kushner (2003) notes that most of the definitions of terrorism encompass one of the following three elements: the purpose, the target, and the method. Similarly, Waugh (1986) provides four elements of the definitions of terrorism, in some form, widely agreed upon by many scholars. First, terrorism involves the use of extraordinary violence. He argues that the acts produced by terrorist groups are extralegal and no nation legitimates the use of terror-producing violence. Second, terrorism is rational behavior. In other words, the acts produced by terrorist groups are not committed by accident. Hence, their acts can be predictable. Third, terrorism has a target group other than its immediate victims. Assassinations of political leaders, for example, are terrorism acts, because the terrorist groups not only kill the political leaders but also give some political messages to a broader audience. Fourth, the selection of victims is mostly symbolic rather than instrumental value in terrorist acts. Thus, terrorist groups mainly direct their violence to police and military targets.

Due to the multifaceted nature of terrorism, some scholars utilize systematic typological classifications to define and describe terrorism (Marsden & Schmid, 2011; Zafirovski & Rodeheaver, 2013; Martin, 2014; Juergensmeyer, 2017). Typological classifications have been

primarily used across disciplines for conceptual clarity. One typology, for example, involves individual, group, state, and societal terrorisms as a classification (Juergensmeyer, 2003). Juergensmeyer (2003) comments that individuals act as lone wolves, while groups as motivators, states as advocators, and societies as supporters of terrorist activity. This typology articulated in the literature as a dichotomy of individual and collective terrorism. More recently, Martin (2014) offers eight terrorism typology classification: the new terrorism, state terrorism, dissident terrorism, religious terrorism, ideological terrorism, international terrorism, criminal dissident terrorism, gender-selective terrorism. Martin (2014) comments that despite the definitional debate of terrorism, typological classifications are beneficial in the identification of patterns.

Regardless of the various definitions of terrorism, the main objective of terrorism is to escalate the public's fear to a devastating state of anxiety. According to Vasilenko (2004), the word of terror is of Latin origin and means fear or horror. In contemporary etymology, the word of terror is very similar to its Latin origin and defined as "horror or fear inspired by cruel and violent deeds"(Vasilenko, 2004, p. 47). Although terrorism is considered to be a major issue, many countries facing in the 21st century, according to some scholars, prior to 9/11, there was no fear of terrorism prevailing in the U.S (May et al., 2011; Victor, 2006).

Although relatively few studies have empirically examined fear of terrorism, the previous research suggests that fears of crime and terrorism are related phenomena (Misis et al., 2017). Hence, the variables affecting fear of crime has applied to the fear of terrorism studies. Among others, demographic characteristic variables such as age, gender, race, and income have demonstrated an association with fear of terrorism. Other variables such as exposure to media and knowledge of the subject matter are also extensively studied in fear of terrorism research.

The empirical evidence shows that age is strongly associated with fear of terrorism (Burnham, 2007; Nellis, 2009; Nellis & Savage, 2012; Pfefferbaum, Tivis, & Pynoos, 1999). In a study regarding the assessment of the effect of media exposure on fear of terrorism, Nellis and Savage (2012) find that age was negatively associated with fear of terrorism, as older people relatively report less fear of terrorism than younger people. Similarly, Nellis (2009) studied gender differences in fear of terrorism and reports that younger women indicate more fear of terrorism. However, in an assessment of the students from middle and high school, following the 1995 Oklahoma City Bombing, Pfefferbaum et al. (1999) find no association between age and post-traumatic stress disorder (PTSD) symptoms.

Gender differences are another measure which has been thoroughly studied in fear of terrorism research (Boscarino, Figley, & Adams, 2003; Burnham, 2007; DeLisi, 2003; May et al., 2011; Nellis, 2009; Nellis & Savage, 2012; B. Pfefferbaum et al., 1999). The previous research shows that women are more fearful of being a victim of a terrorist attack (DeLisi, 2003). Nellis (2009), for example, reports that women indicate a greater level of fear of terrorism than men. In addition to that, women perceive a much greater risk of terrorism than men. In another study, Pfefferbaum et al. (1999) find that female students report higher levels of PTSD than male students in the wake of the 1995 Oklahoma City Bombing. Similarly, after the 9/11 terrorist attacks, Boscarino, Figley, and Adams (2003) find that women between the age of 45 and 64 years old who were African Americans and Hispanics with less education and income indicated a greater level of fear of future terrorist attacks.

In terms of race and income measures, the previous research suggests that race is associated with fear of crime and fear of terrorism and to a lesser extent, income has found to be related with fear and risk of terrorism (May et al., 2011; Nellis & Savage, 2012). Nellis and

Savage (2012) find that minorities reported a higher level of fear of terrorism as well as perceived a greater level of risk of a terrorist attack. Regarding the income measure, using a statewide survey of 1,617 adults in Kentucky, May et al. (2011) report that race and income have minimal impact on fear of terrorism.

Exposure to the media is another measure of fear of terrorism which has been extensively studied by the previous research (Nellis & Savage, 2012; Rubin et al., 2003). There are contradictory findings on the exposure to media variable. Using a telephone survey of 532 people living in New York and Washington, Nellis and Savage (2012) find that exposure to terrorism-related news has a significant impact on the perceived risk of terrorism and fear of terrorism for others, not for self. However, Rubin et al. (2003) who examine the role of exposure to terrorism-related coverage among undergraduate students following the 9/11 terrorist attacks, find no association between exposure to media and fear of terrorism. They report that viewer characteristics are better predictors of fear of terrorism than exposure to terrorism-related coverage.

Community Policing and Terrorism

Though the concept of community policing has been initiated for crime-related research, recently a significant number of studies have focused on community policing philosophy as an approach to homeland security (Friedmann & Cannon, 2007; Lyons, 2002; Murray, 2005). Since September 11, 2001 terrorist attacks, the U.S. homeland security has gone through major changes in the fight against terrorism. Following the terrorist attacks, homeland security has waged war on terrorism and focused more on aggressive measures to counter the impacts of the terrorism threat. The scope of these measures has mostly ranged from the adaptation of military and para-military organizational structures to a more aggressive foreign policy. However,

terrorism research suggests that centralized organizational structures can be counterproductive and undermine the war on terror (Lyons, 2002; Murray, 2005). A wide array of research, therefore, suggests that decentralized organizational structures which focus on public involvement such as community policing would be more productive in dealing with terrorism threat (Lyons, 2002). Community policing which aims to foster a positive relationship between police and community members facilitates information sharing from both sides about public safety issues. It increases the capacity of local authorities to gather intelligence which is needed to detect and prevent terrorist incidents. In this respect, this research seeks the viability of community policing philosophy as a comprehensive counter-terrorism strategy in dealing with the various effects of terrorism, particularly fear of terrorism.

<center>Theory</center>

Routine Activity Theory

This study uses the routine activity theory to understand how the public's perception of community policing practices influence the public's attitudes toward fear of terrorism. Although this theory is looking at the occurrence of any criminal activity from an ecological perspective and takes academic attention away from the mere perpetrator, I use the routine activity theory to explain how the public's perception of community policing affects the perception of fear of terrorism among the public. As the narrative studies of community policing suggest, community policing is likely to enhance capable guardianship of law enforcement agencies through the information and intelligence provided by the public. Moreover, the successful implementation of community policing is also very likely to influence the perpetrator's perception of target suitability as it enables citizens to increase their preparedness levels for future terrorist attacks. Hence, this study assumes that the implementation of community policing practices prevents the

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successful completion of terrorist attacks and therefore it reduces citizen's fear of terrorism. The following section introduces the routine activity theory and its elements in order to develop a better understanding of the theory.

The routine activity theory (aka, the routine activity approach), proposed by Lawrence E. Cohen and Marcus Felson in 1979, has evolved from the rational choice theory as a situational crime prevention approach (Cohen & Felson, 1979). In their seminal work about crime rate trends in the U.S. between 1947 and 1974, Cohen and Felson (1979) proposed the routine activity theory in their explanation of the three necessary conditions that contribute to criminal activity. These conditions include motivated offenders, suitable targets, and the absence of capable guardians. Motivated offenders are capable individuals who are willing to commit criminal activity. Suitable target is a person and/or an object that is vulnerable to criminal activity and are seen as attractive by motivated offenders. Guardianship lastly refers to a person and/or an object that is capable of preventing the successful completion of criminal activity.

Cohen and Felson (1979) further claim that the absence of any of these conditions is adequate in deterring criminal activity. However, they also note that the presence of suitable targets and paucity of capable guardians in space and time may increase the probability of criminal activity occurring without requiring any change in situational causes that motivate individuals to commit a crime. In other words, Cohen and Felson discuss that structural conditions such as poverty, unemployment, and inequality have relatively less impact on crime rates than situational conditions given above. Despite to social changes of the 1960s and economic prosperity after World War II, according to Cohen and Felson, the crime rates during this time showed a significant increase. The reason for the increase in crime rates, as they

explain, is that the advancement in social, economic, and technological conditions presents more opportunities for the occurrence of crime.

Taking its roots from the rational choice theory which assumes that individuals make decisions in a rational manner based on available preferences to achieve a specific goal, routine activity theory focuses on situational factors and offender behavior rather than characteristics of the offender. The theory assumes that the environment has an important role by creating more opportunities for the occurrence of criminal activity. Hence, Cohen and Felson (1979) emphasize the importance of guardianship in crime prevention. They further argue that though guardianship of law enforcement is widely examined, there is a paucity of research about the guardianship of ordinary citizens of one another.

The routine activity theory has been primarily applied to criminological research. Recently, the theory finds application in terrorism research (Cohen & Felson, 1979). Given the various definition of terrorism, terrorism is a violation of the law and therefore is a crime (Lyman & Potter, 1997; Hamm, 2007; Lieberman, 2009). Cohen and Felson (1979, p. 589) initially proposed the routine activity theory to analyze direct-contact predatory violations described as "violations involving direct physical contact between at least one offender and at least one person or object which that offender attempts to take or damage". Although there may not always be a direct physical contact associated with a typical crime, there is a direct contact between perpetrator and target, which is not necessarily physical as in the example of explosive device detonation. Hence, the theory can be applied to the terrorism research as well.

In the context of community policing, the emphasis given on cooperation and partnership between police and community is likely to enhance capable guardianship of police agencies through developing a shared understanding of community needs and fostering a trust

environment. Community policing allows citizens to participate in the process of public safety

production. As citizens become involved in the co-production of public safety, they tend to

participate more in the process and expand their confidence in the police. They also tend to

communicate and cooperate more with the police as providing information and intelligence about

public safety issues. In examining the pre-incident patterns of terrorists' behaviors, Smith,

Damphousse, and Roberts (2006) find that terrorist actors are more likely to live relatively close

to the targeted location for further planning and preparation. Community policing with its

potential enables citizens living in the targeted community to report any suspicious activity to the

police. It also helps law enforcement agencies to detect and thwart terrorist incidents through the

information provided by the citizens. Community policing in this sense provides an extension of

capable guardianship of law enforcement agencies. More importantly, as citizens become

involved in the process of co-production of public safety with the law enforcement agencies,

they feel safer and become more aware of their abilities to protect themselves and their

communities from terrorist incidents. Police involvement in the community and community

crime prevention components of community policing is therefore expected to reduce the citizen's

fear of terrorism.

Community policing can also improve the capable guardianship of law enforcement

agencies as it helps police officers increase their awareness about cultural differences that exist

in diverse communities. Benavides (2014) argues that lack of understanding about cultural

differences can create difficulties in the delivery of services. Such lack of understanding about

cultural differences impedes policing services being effective in countering the terrorism threat.

Considering the fact that the majority of the U.S. population lives in urban areas that have

cultural and racial diversities, community policing is essential to develop a better understanding

of community needs. Similarly, in examining the reasons for terrorism, Benavides, Alhumaid, and Quainoo (2011) maintain that cultural competency which is defined as the process of understanding the needs of people to provide equitable outcomes can serve as a tool to counter the terrorism threat. Community policing practices of working with community and community crime prevention can enhance the cultural competency of the administrators and police officers in service delivery as they develop a better understanding of community needs. This, in turn, can foster the relationship between the citizens and police officers and develop a trust environment where it is easier to detect and respond to the terrorism threat and where the citizens feel safer and have a relatively lower fear of terrorism.

Moreover, the successful implementation of community policing is likely to influence the perpetrator's perception of target suitability. Because the various community policing practices increase public awareness and preparedness for terrorist events. In a community where community policing is successfully implemented, citizens are more likely to be aware of the community resources that can be used to prepare for negative events such as terrorist attacks. Such information about community resources can influence their preparedness behaviors for terrorist events. Terrorist groups or individual perpetrators would not want to target a community that is well-prepared for terrorist events. Therefore, community policing practices have their very potential to decrease the probability that a community will be targeted for an attack. Hence, it is expected that citizens who know they will not be a target for a terrorist attack have no or relatively lower fear of terrorism. In the light of this discussion, the following hypotheses are developed.

> *Hypothesis 1: The higher the citizen's perception of police involvement in the community, the lower the citizen's fear of terrorism.*

Hypothesis 2: The higher the citizen's perception of community crime prevention, the lower the citizen's fear of terrorism.

Hypothesis 3: Citizens living in a city with a greater community policing implementation tend to have a lower fear of terrorism than citizens living in a city with a limited community policing implementation.

Data and Methodology

The data for this study were collected through an online survey conducted in the cities of Arlington and Frisco, Texas between May 20 and June 26, 2019. The sample of the survey includes citizens residing in these two cities of Texas. The survey distributed to the citizens through the Amazon Mechanical Turk (MTurk) platform which is a crowdsourcing website to perform on-demand tasks (Paolacci, Chandler, & Ipeirotis, 2010). The use of MTurk has been growing rapidly in the social sciences, especially the ones that require behavioral analysis (Crump, McDonnell, & Gureckis, 2013; Stritch, Pedersen, & Taggart, 2017; Zhu, Song, Hazen, Lee, & Cegielski, 2018). Research has validated the use of Mturk to recruit respondents and suggests that respondents of the MTurk platform are comparable to the respondents of traditional surveys (Buhrmester, Kwang, & Gosling, 2011). In the context of public administration, MTurk is also found to be beneficial for researchers examining social phenomena among a diverse population (Hjortskov, 2017; Stritch et al., 2017). Mturk ensures greater generalizability through recruiting respondents from a wide range of ages, socio-economic backgrounds, and ethnicities.

An online questionnaire was developed through Qualtrics and posted on Mturk to recruit respondents. A screening question was created at the beginning of the survey to limit participation to those living in the cities of Arlington and Frisco, TX. These cities were selected through the help of the Law Enforcement Management and Administrative Statistics (LEMAS) survey. The LEMAS survey has been gathered on a regular basis from the state and local law enforcement agencies since 1987 and includes questions ranging from agencies' responsibilities,

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demographic characteristics, and training programs. A scale of community policing

implementation was created out of 9 questions on the LEMAS survey to capture the variation in

the level of community policing implementation among the cities across the United States. The

questions included on the scale consist of statements about whether the law enforcement

agencies' mission statement has a component of community policing, whether the agencies send

their personnel to training on community policing issues, whether the agencies engage in

problem-solving, collaboration, and partnership projects, and whether the agencies have a

website to share crime-related information to the public. Arlington was among the cities that

have the highest scores on this community policing scale, whereas Frisco was among the cities

that do poorly on this scale. The cities of Arlington and Frisco have similar socio-demographic

characteristics and located in the same region which makes two cities comparable.

If the respondents were not living in either Arlington or Frisco, the survey was

terminated, and those respondents were excluded from participation. Respondents who

completed and submitted the survey on MTurk received monetary compensation. Out of 1178

attempts to take the survey, 348 respondents were able to participate in the survey after satisfying

the screening question. However, 10 respondents were removed because they were not able to

complete all the questions in the survey. A sample size of 338 was obtained for the analysis. The

comparison of the demographic characteristics of the sample and population was presented in

Table 1. The sample shows similar demographic characteristics to the population.

This research employs ordinary least squares (OLS) regression analysis to test the

hypotheses. Before conducting multivariate analysis, all appropriate diagnostic tests were

performed. Robust standard errors were reported to account for the potential heteroscedasticity

of the error terms in all models (Carroll & Ruppert, 1982; Cheng, 2018; Wilcox & Keselman, 2004).

Table 1: Comparison of Demographic Characteristics of the Sample and Population

Demographic Variables		Sample		Census Bureau - 2017	
		Arlington	Frisco	Arlington	Frisco
Gender	Male	52%	54%	49%	49.1%
	Female	48%	46%	51%	50.8%
Race	White	55.5%	66.9%	40.1%	60.2%
	Black/African American	18.3%	10.1%	21.9%	7.4%
	Hispanic/Latino	14.8%	13.8%	28.9.%	12.4%
	Asian	9.6%	9.2%	6.9%	16.8%
	Other	1.7%	-	1.5%	3.2%
Income*	Less than $10,000	10%	5.5%	5.6%	2.3%
	$10,000 - $49,999	50.2%	46.8%	38.8%	15.5%
	More than $50,000	39.7%	47.6%	55.6%	82.4%
Education	Less than high school	0.5%	-	15.2%	4.2%
	High school graduate	8.3%	8.3%	23.2%	10.2%
	Some college	24%	18.3%	24.5%	18.7%
	2-years degree	12.2%	10.1%	7.6%	6.6%
	4-years degree	40.6%	52.3%	19.9%	37.7%
	Graduate degree	14.4%	11%	9.6%	22.6%
Age	Under 18	-	-	26.3%	31.6%
	18 – 24	24%	17.4%	10.9%	5.7%
	25 – 34	47.6%	51.4%	15.3%	10.4%
	35 – 44	19.2	21.1%	13.6%	20.3%
	45 – 54	7%	5.5%	13.2%	16.4%
	55 – 64	1.7%	1.8%	10.7%	8%
	65 – 74	0.4%	2.8%	6.4%	5%
	75 or older	-	-	3.6%	2.6%
Marital Status	Married	41.5%	63.3%	46.3%	66.1%
	Widowed	0.4%	1.8%	4.2%	2.8%
	Divorced	5.7%	2.8%	11%	8.2%
	Separated	3.5%	0.9%	2.3%	1.1%
	Single/never married	48.9%	31.2%	36.1%	21.8%

*Due to the differences in the brackets of income categorical variable between the survey and Census Bureau, some of the brackets were interpolated.

Citizen's fear of terrorism is the dependent variable, whereas working with community, community crime prevention and city are the main independent variables. This study also adds several control variables into the models, that are reported to have an impact on citizen's fear of terrorism, including age, income, education, race, gender, and marital status. Four separate models are developed. The first model tests the impact of the citizen's perception of that police officers are working with community on citizen's fear of terrorism, controlling for the effect of the control variables. The second model tests the impact of citizen's perception of that an adequate number of police officers are working on crime prevention and patrolling streets on citizen's fear of terrorism, controlling for the effect of the control variables. A third model is developed to test the effect of city variable (Arlington) on citizen's fear of terrorism. Lastly, a fourth model is estimated to run all the variables at the same time.

Dependent Variable

The present study focuses on the *citizen's fear of terrorism* as a dependent variable. Two survey items were used to operationalize this variable: "(1) How worried are you that you or someone in your family will become a victim of a terrorist attack?" and (2) How likely is that there will be acts of terrorism in your community in the next 2 years?". Response categories for the first question range from extremely worried to not at all worried (1=extremely worried, 5=not at all worried), while the second question has four response categories ranging from very likely to very unlikely. The response categories were reversed, and re-coded as higher scores indicate a greater fear of terrorism. A reliability test was conducted for the fear of terrorism index with Cronbach's alpha to see the internal consistency ($\alpha=0.67$). Although the Cronbach's alpha is lower than the commonly agreed-upon threshold of 0.70, it is in the acceptable range since it is mainly due to fewer items contributed to the index (Taber, 2018; van Griethuijsen et al., 2015)

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A plethora of research has adopted either or both of these questions as measures of fear of terrorism (Huddy, Feldman, Capelos, & Provost, 2002; May et al., 2011). These questions have also been used in the Gallup polls for many years to capture the individual's fear of terrorism. An extensive review of the terrorism literature suggests that these two measures are related and cover different facets of the concept of fear of terrorism.

Independent Variables

The current study involves three independent variables, including *working with community, community crime prevention*, and *city*. Working with community and community crime prevention were adopted from the literature and represent the core of the concept of community policing although they are not exhaustive (Xu et al., 2005). Working with community variable was measured with a survey item that inquires the extent to which respondents think that "police officers are working with community to solve neighborhood problems". Response categories range from strongly agree to strongly disagree (1=strongly agree, 5=strongly disagree). It was reversed and re-coded as higher values indicate greater agreement on the statement above.

Community crime prevention variable is an index consists of two survey items asked respondents to indicate the extent to which they agree or disagree with the following two statements: "(1) There are enough police officers working on crime prevention (such as school crime education programs and citizen and safety training opportunities)" and "(2) There are enough police officers patrolling streets". Response categories range from strongly agree to strongly disagree (1=strongly agree, 5=strongly disagree). It was reversed and re-coded as higher values represent greater agreement on the statements above. The reliability of the index was

assessed with Cronbach's alpha ($\alpha=0.74$) suggesting higher internal consistency between the two survey items.

The analyses also include *city* variable as an independent variable to capture any significant differences between two cities. This variable was operationalized through the following survey question "In which city do you live?". Response categories included 1=Frisco, 2=Arlington, and 3=None. It was re-coded as 1=Arlington and 0=Frisco. These two cities were intentionally selected to see the variation in the level of fear of terrorism as they have variations in the level of community policing implementation. It can be beneficial to see the variation in fear of terrorism among citizens living in two cities, one with a higher level of community policing implementation, and the other with a limited community policing implementation.

Control Variables

Based on the findings of the previous research on fear of terrorism, *age, income, education, race, gender, and marital status* variables were included in this study as control variables. The bulk of the literature reports that age is strongly associated with fear of terrorism, as older people indicate relatively lower fear of terrorism than younger people (Burnham, 2007; Nellis, 2009; Nellis & Savage, 2012). A study using a longitudinal web-based survey reports that older age is associated with a lower level of fear of terrorism (Scott, Poulin, & Silver, 2013). Contrary to their findings, in a study regarding the effect of democracy on fear of terrorism, Christensen and Aars (2019) find that fear of terrorism increases as age increases. Age variable is measured with a single survey item with 8 response categories.

To a lesser extent, income has found to be associated with fear and risk of terrorism (May et al., 2011; Nellis & Savage, 2012). Using a statewide survey of 1,617 adults in Kentucky, May et al (2011), for example, find that income has a minimal effect on fear of terrorism. Income

variable is measured with a survey question with 5 response categories. The literature also suggests that the level of education is related to fear of terrorism. Christensen and Aars (2019) report that fear of terrorism decreases as the respondent's educational attainment increases. Education variable is operationalized with single survey questions with response categories range from 1=less than high school degree to 7=doctorate degree.

In terms of race variable, the previous research mostly focused on the relationship between race and crime. There are relatively fewer studies which incorporate race variable as a predictor of fear of terrorism. Nellis and Savage (2012), for example, find that minorities indicate a relatively higher level of fear of terrorism. More recently, Salvatore and Rubin (2015, p. 947) report that "being African American or Hispanic, along with being female and having less education, related to a higher level of fear of terrorism". Race variable is measured with a single survey question with the response categories of 1=White, 2=Black/African American, 3=Hispanic/Latino, 4=Asian, 5=Native Hawaiian/Pacific Islander, and 6=Other. The fifth category was deleted upon no response was recorded and was re-coded from 1 to 5.

Gender differences have been thoroughly studied in fear of terrorism literature. A wide array of studies suggest that women are more fearful of being a victim of a terrorist attack (DeLisi, 2003; May et al., 2011; Nellis, 2009). A study using a telephone survey of 532 individuals living in New York and Washington, Nellis (2009) finds that women tend to report a greater level of fear of terrorism than men do. Gender variable is measured with a single survey question with response categories of 1=Male 2=Female. It was re-coded as 1=Male and 0=Female. Lastly, literature reports controversial findings regarding the effect of marital status on fear of terrorism. May et al. (2011) find that married people are more fearful of terrorism than unmarried people. In a study following the 9/11 terrorist attacks, Boscarino, Figley, and Adams

(2003), on the other hand, find no correlation between marital status and fear of terrorism.

Marital status variable is measured with a single survey question with 5 response categories. It

was re-coded as 1=married and 0=not married.

Descriptive Statistics

The descriptive statistics of all variables in the analysis are presented in Table 2. Nearly

68% of the participants live in Arlington. Males (53%) hold slightly a larger percentage in the

sample than females (47%). As displayed in table 1, the education of the participants averaged

around 2-year college degree. Blacks/African Americans constitute nearly 16% of the whole

population, while Hispanics/Latinos and Asians respectively constitute 15% and 9% of the entire

sample.

Table 2: Descriptive Statistics

Variables	N	Mean or %	SD	Min	Max
Fear of Terrorism	338	4.444	1.970	2	9
Working with Community	338	3.402	1.009	1	5
Community Crime Prevention	338	6.435	2.026	2	10
Arlington (1=Arlington, 0=Frisco)	338	67.8%	0.468	0	1
Male	338	52.7%	0.500	0	1
Age	338	3.210	0.993	2	7
Income	338	3.284	1.090	1	5
Education	338	4.328	1.236	1	7
Black/African American (White)	338	15.5%	0.364	0	1
Hispanic/Latino (White)	338	14.5%	0.353	0	1
Asian (White)	338	9.47%	0.293	0	1
Other (White)	338	1.18%	0.108	0	1
Married (1=Married, 0=Non-married)	338	48.5%	0.501	0	1

Table 3: Correlation Matrix of All Variables in Analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Fear of Terrorism	1.000												
(2) Working with Community	-0.035	1.000											
(3) Community Crime Prevention	-0.147	0.332	1.000										
(4) Arlington (1=Arlington, 0=Frisco)	-0.066	-0.089	-0.071	1.000									
(5) Male (1=Male, 0=Female)	0.033	0.055	0.040	-0.020	1.000								
(6) Age	0.025	0.069	-0.097	-0.071	0.040	1.000							
(7) Income	-0.074	-0.007	-0.006	-0.117	0.128	0.274	1.000						
(8) Education	0.040	0.091	0.051	-0.052	0.099	0.169	0.400	1.000					
(9) Black/African American (White)	0.139	0.054	0.032	0.106	-0.064	0.048	-0.053	0.011	1.000				
(10) Hispanic/Latino (White)	-0.063	-0.106	0.003	0.014	0.003	-0.138	-0.123	-0.130	-0.178	1.000			
(11) Asian (White)	-0.016	-0.079	-0.030	0.007	0.084	-0.058	0.018	0.070	-0.139	-0.133	1.000		
(12) Other (White)	-0.039	-0.044	0.071	0.076	-0.061	0.087	-0.003	-0.007	-0.047	-0.045	-0.035	1.000	
(13) Married (Non-married)	0.184	0.123	-0.024	-0.204	0.150	0.302	0.290	0.197	-0.060	0.004	-0.112	-0.052	1.000

The mean score of fear of terrorism is 4.44, suggesting that on average, the participants reported a slightly moderate fear of terrorism. The mean score of working with community variable is 3.40, meaning that on average, the respondents agree that police officers are working with residents to solve neighborhood problems. The respondents' perception of community crime prevention is averaged around 6.44, suggesting that the respondents have a crime prevention perception just at the mid-point on the index ranging from 2 to 10.

Table 3 displays the correlation matrix of all variables in the analysis. The correlation matrix suggests that there is no multicollinearity between variables. Among others, education and income have the highest correlation with a value of 0.4. Yet, it does not cause a bias in the results.

Results

Table 4 presents the results of the OLS regression analysis testing the effect of two community policing variables (working with community and community crime prevention), city variable (Arlington), and a set of control variables on fear of terrorism index. Four models were developed. The first model tests the first hypothesis and includes working with community variable as a predictor of fear of terrorism index. Yet, the results suggest that it is not a significant predictor of citizen's fear of terrorism. The second model contains community crime prevention variable. The results show that community crime prevention is a significant predictor of fear of terrorism. More specifically, on average, as the citizen's perception of crime prevention increases, it is expected to see a reduction in citizen's fear of terrorism by 0.15, controlling for the effect of other variables. The third model includes Arlington as a city variable. As the results show, it is not statistically significant. The last model contains all the variables to test their impact on fear of terrorism at the same time. Similarly, only community crime

prevention emerges as a significant predictor of terrorism fear. There is a negative significant relationship between community crime prevention and fear of terrorism. The results suggest that on average, citizen's fear of terrorism decreases by 0.143 with each additional unit increase in citizen's community crime prevention index, all else being equal.

Table 4: OLS Regression Analysis Predicting Fear of Terrorism

	Model 1	Model 2	Model 3	Model 4
Working with Community	-0.167			-0.077
	(0.117)			(0.113)
Community Crime Prevention		-0.150***		-0.143***
		(0.053)		(0.054)
Arlington (1=Arlington, 0=Frisco)			-0.216	-0.285
			(0.237)	(0.233)
Male (1=Male, 0=Female)	0.098	0.112	0.087	0.124
	(0.215)	(0.212)	(0.215)	(0.212)
Age	-0.041	-0.082	-0.047	-0.080
	(0.098)	(0.097)	(0.097)	(0.098)
Income	-0.300***	-0.286***	-0.290***	-0.300***
	(0.110)	(0.105)	(0.109)	(0.107)
Education	0.090	0.095	0.078	0.101
	(0.097)	(0.095)	(0.099)	(0.095)
Black/African American (White)	0.757***	0.780***	0.776***	0.821***
	(0.287)	(0.291)	(0.286)	(0.292)
Hispanic/Latino (White)	-0.356	-0.302	-0.294	-0.315
	(0.326)	(0.316)	(0.328)	(0.316)
Asian (White)	0.067	0.078	0.119	0.059
	(0.353)	(0.345)	(0.369)	(0.349)
Other (White)	-0.412	-0.102	-0.272	-0.053
	(0.514)	(0.527)	(0.507)	(0.541)
Married (1=Married, 0=Not married)	0.956***	0.916***	0.884***	0.885***
	(0.235)	(0.233)	(0.238)	(0.236)
Constant	5.154***	5.613***	4.791***	6.039***
	(0.689)	(0.671)	(0.594)	(0.775)
Observations	338	338	338	338
R-squared	0.087	0.103	0.082	0.108

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Among control variables, income, Black/African American, and marital status variables appear to be statistically significant predictors of fear of terrorism across models. Income is negatively associated with fear of terrorism, suggesting that as citizen's income level increases, their fear of terrorism tends to reduce by 0.3. Though the previous research suggests that income has a minimal effect on fear of terrorism, this study finds that income is one of the strong predictors of fear of terrorism. The findings also support the literature regarding the effect of race in predicting the fear of terrorism. However, only Black/African American race appears to be significant, while Hispanic/Latino, Asian, and other race categories are not found to be significant. On average, Blacks/African Americans tend to report a higher fear of terrorism than Whites, all else being equal ($\beta=0.821$, $p<0.01$). Consistent with the literature, marital status also emerges as a significant predictor of fear of terrorism across the models. More specifically, on average, married citizens are expected to be more fearful of terrorism than non-married citizens ($\beta=0.885$, $p<0.01$).

This study finds support to the second hypothesis, while the first hypothesis is not supported since working with community variable is not a statistically significant predictor of fear of terrorism. As hypothesized, citizen's fear of terrorism decreases as the perception of community crime prevention increases ($\beta=0.143$, $p<0.01$). The third hypothesis is also not supported.

Figure 2 shows the marginal effect of community crime prevention on fear of terrorism. According to this graphical description of the relationship between community crime prevention and fear of terrorism, as the citizen's perception of community crime prevention increases from its minimum to its maximum, fear of terrorism decreases from 5.08 to 3.93 (23%).
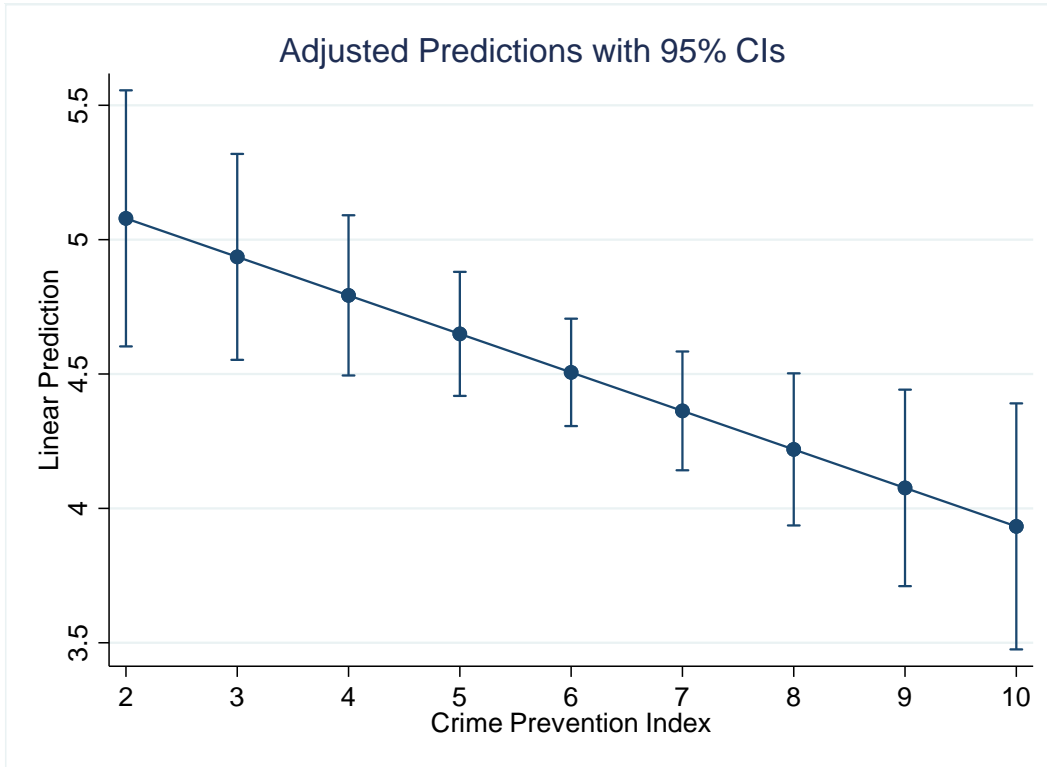
Figure 2: Marginal effect of crime prevention index on fear of terrorism index

Discussion and Conclusion

The purpose of this study was to examine the effect of community policing on fear of terrorism using routine activity theory. It was argued that working with community and community crime prevention as the two important community policing strategies tend to reduce citizen's fear of terrorism. According to the routine activity theory, three necessary conditions must be met for criminal activity to occur: a motivated offender, a suitable target, and the absence of capable guardianship (Cohen & Felson, 1979). This study suggests that with its emphasis given on collaboration, partnership, and problem-solving, community policing is likely to enhance capable guardianship of police agencies. In that case, since one of the three necessary conditions (the absence of capable guardianship) does not occur, terrorism threat as a criminal activity will not occur. As suggested by terrorism researchers, strategies that increase

collaboration and communication between the public and police officers are valuable in countering the terrorism threat. In this sense, community policing serves a valuable tool in detecting and preventing terrorist incidents. The successful implementation of community policing, hence, will result in little or no fear of terrorism among citizens.

Furthermore, various community policing efforts are likely to enhance cultural competency of public administrators in service delivery through public engagement. In other words, community policing increases awareness of public administrators about cultural differences in service delivery through developing a shared understanding of community needs.

A better understanding of community needs is likely to foster the relationship between the public and public administrators which in turn tend to reduce the fear of terrorism among citizens.

Community policing is also likely to increase citizen's awareness and preparedness for future terrorism acts. Citizens with a better understanding of terrorism threat are expected to have less fear of terrorism compared to those with no understanding of terrorism threat. Moreover, it will also affect the perpetrators' perception of target suitability. Communities in which community policing is successfully implemented will not be targeted by the perpetrators. In this sense, community policing serves a valuable tool in deterring the terrorism threat. Therefore, it is expected to see little or no fear of terrorism in communities that implement community policing successfully. Using the Routine Activity theory, three hypotheses were developed.

The first hypothesis suggested that as the citizen's perception of police involvement in the community increases, there will be a reduction in citizen's fear of terrorism. However, this

study did not find evidence to support this hypothesis. Across all models, working with community variable is not a statistically significant predictor of fear of terrorism among citizens.

The second hypothesis suggested that citizen's perception of community crime prevention is negatively associated with citizen's fear of terrorism. This hypothesis was supported by the results. Community crime prevention variable is found to be statistically significant across models and it is negatively associated with fear of terrorism. That is, as the citizen's perception of crime prevention increases, fear of terrorism decreases.

The third hypothesis suggested that citizens living in a city with a greater community policing implementation tend to have lower fear of terrorism than citizens living in a city with a limited community policing implementation. However, this study could not find evidence to support this hypothesis. Arlington variable is not a significant predictor of fear of terrorism across models.

There are several implications associated with these findings. While citizen's perception of police involvement in the community is not a significant predictor of fear of terrorism, citizen's perception of community crime prevention is a significant predictor of fear of terrorism. This might be due to several reasons. For community crime prevention variable, the respondents were asked: "To what extent are you agree or disagree with the following statements: (1) There are enough police officers working on crime prevention (such as school crime education programs and citizen and safety training opportunities) and (2) There are enough police officers patrolling streets". For working with community variable, on the other hand, the respondents were asked "To what extent are you agree or disagree with the following statement: (1) Police officers are working with community to solve neighborhood problems". Considering the statements of these two variables, citizens might value seeing police officers patrolling on the

streets more in dealing with the fear of terrorism than collaboration efforts in dealing with fear of terrorism. Additionally, citizens might not be aware of the collaboration efforts of police officers or they might lack understanding about the extent of police involvement in the community. In this respect, increasing citizens' awareness on the other community policing efforts such as collaboration, problem-solving, and partnership might also reduce the fear of terrorism among citizens.

As a policy implication, law enforcement agencies, therefore, might want to focus on efforts to increase citizens' awareness about community policing strategies. In addition, law enforcement agencies might want to increase police visibility and public assurance in order to reduce citizen's fear of terrorism as well as to increase the quality of life.

There are several limitations associated with this study. First, there is a need to collect data from more cities with different levels of community policing implementation. In this study, the city of Arlington that has a high score of community policing implementation and the city of Frisco that has a relatively lower score of community policing implementation are compared regarding the effect of community policing on fear of terrorism. Yet, there is not a statistically significant difference between the citizens living in these two cities. Data from more cities with different levels of community policing implementation is needed to provide insight into how the variation in the level of community policing affects fear of terrorism.

Another limitation is the use of cross-sectional data. The frequency of terrorist incidents might affect citizen's fear of terrorism. Cross-sectional data contains information only at one point in time. Longitudinal data allows us to see the variation in fear of terrorism among citizens over time. Citizen's fear of terrorism might be elevated due to the latest terrorist incident or it might drop over time if no terrorist incidents occur. Cross-sectional data does not provide insight

into the variation in fear of terrorism. Longitudinal data, therefore, might be more appropriate in studying fear of terrorism.

CHAPTER 3

THE IMPACT OF COMMUNITY POLICING ON RESILIENCE

Terrorist attacks are purposefully designed to instill fear among people and to spread panic and intimidation among a targeted audience. Acts of terror are unpredictable and indiscriminate violence that often aims at unarmed and defenseless individuals. The intended consequences of the terror incidents are not only limited to the death and injury of the immediate victims. A wide range of psychological and behavioral reactions develop when these events occur, including but not limited to, distress (Schlenger et al., 2002; Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002), anxiety, changes in attitudes and behaviors (Butler et al., 2003), psychiatric morbidity (Galea et al., 2002; North & Pfefferbaum, 2002), concern about the future, change in substance use (Stein et al., 2004; Vlahov et al., 2002). In addition to that of personal consequences, terrorist actions have also negative impacts on communities and societies at large (Reissman, Klomp, Kent, & Pfefferbaum, 2004).

These negative consequences can be prevented or reduced through a range of medical and psychological interventions. Another approach to address the negative impacts of terrorist actions is through building community resilience (Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008; B. J. Pfefferbaum, Reissman, Pfefferbaum, Klomp, & Gurwitch, 2008). Reisman et al. (2005) argue that strategies that improve the cohesiveness of social organization would enhance community resilience. They further contend that such strategies would serve as effective measures in countering the impact of terrorism. Hence, efforts to build community resilience are valuable to address and respond to terrorist events.

The main thrust of this current study is to examine the extent to which community policing could be a strategy in building up resilience in the face of terrorism. In particular, this

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study examines how police involvement in the community and community crime prevention practices which represent the core ideas of the community policing philosophy can influence the citizen's perception of resilience for a future terrorist attack. In addition, this study examines the impact of the variation in the level of community policing implementation on citizen's resilience. Considering the evolving nature of terrorism threat since the September 11, 2001 terrorist attacks, this study argues that community policing can provide benefits in building up resilient individuals and communities. As the terrorist groups adjust their tactics, switching their focus away from complicated operational plans toward the use of individuals who require no extended support, centralized homeland security efforts are doomed to failure. The growing threat of lone wolf terrorists who act alone, outside of any structure and without receiving assistance from any organized group makes it even harder to detect and respond to such terror events with the macro-level centralized homeland security policies. Today, a significant number of studies suggest that community policing is very promising in addressing the various effects of terrorist events (Docobo, 2005; Dunn et al., 2016; Lieberman, 2009; Spalek, 2010; Murray, 2005). According to this line of research, centralized counter-terrorism efforts that started with the war on terror era following the September 11, 2001 terrorist attacks would not only be counterproductive but also diminish the effectiveness of community policing that has made in over the last four decades.

Community policing is an instrumental philosophy that offers multiple benefits in addressing the wide-ranging effects of terrorism on individuals and communities that are vulnerable to terror attacks. Its role in building up individual and community resilience in the face of terrorism is fundamental. Community policing enables citizens to access commonly available community resources through collaboration and partnerships with other citizens, communities, and local authorities. Having access to the community resources which are not

otherwise available enables citizens to better prepare for emergency situations as well as to help them recover faster and healthier in case of a disaster. Moreover, community policing helps communities develop a collective risk perception for future terrorist attacks. Communities that share a common risk perception of a future terrorist attack have the ability to influence the preparedness behaviors of their members. As the community policing enhances the cohesiveness of the communities, individuals are very likely to feel empowered and more resilient for a future terrorist attack.

This study proceeds as follows: The first section provides a review of the existing literature on resilience and community policing. The social capital theory is presented in explaining how community policing influences the citizen's perception of resilience for a future terrorist attack. The following section introduces the data and methodology and presents the findings of this study. The last section discusses the implications of the important findings.

Literature Review

A wide range of studies have reported that individuals show significant strength after a disturbance, tragedy, adversity, and threat (Norris & Stevens, 2007; Norris et al., 2008; Pfefferbaum et al., 2008; Reissman et al., 2004). The literature refers to this capacity as resilience. Taking its roots from the sciences of physics and mathematics, resilience as a concept was initially used to characterize the capacity of an object to restore equilibrium after a force used upon. In his influential study about resilience and ecological systems, Holling (1973) inherited the term resilience as a metaphor from classical physics and ever since, it has been applied to describe "adaptive capacities of individuals" exposed to adverse circumstances (Butler, Morland, & Leskin, 2007; Norris et al., 2008; Rutter, 1993).

Although the concept of resilience has gained recognition worldwide, research suffers

from inconsistent definitions of resilience (Reissman et al., 2004). Norris and colleagues (2008) reviewed a wide array of studies across disciplines to examine how resilience is conceptualized in the literature. According to them, most of the definitions highlight a capacity or an ability for successful adaption after a disturbance. Drawing upon many definitions across disciplines, they also note that there is an agreement on two main points: First, resilience is viewed as a process instead of an outcome, and second, resilience is defined as adaptability instead of stability.

In the light of various definitions of resilience in the literature, this study adopts Norris et al.'s definition of resilience as "a process linking set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance" (Norris et al., 2008, p. 130). Adaptive capacities here refer to dynamic resources that are readily accessible such as resources and energies that people need to buffer adversities (Norris et al., 2008). Norris et al. (2008) advise that the operationalization of resilience requires adjustment to the specific components of the resilience definition, determined by the level of analysis (individual level, community level, or society level).

Another line of research focuses on resilience at the community level (Cutter et al., 2008; Kimhi & Shamai, 2004; Patel, Rogers, Amlôt, & Rubin, 2017; Paton, Millar, & Johnston, 2001). Communities are made up of built, natural, and social environments that interact with each other in a dynamic and complex way. Communities involve individuals, organizations, entities, and structures within geographic boundaries and reflect shared beliefs, norms, and perceptions that influence behaviors of the community members. Studies on community policing often compare individual resilience with community resilience and ask the question of "is whole greater than the sum of its parts?" (Eachus, 2014; Norris & Stevens, 2007; Norris et al., 2008). This question is essential because communities as a whole are composed of individuals that form their parts.

The resilience of a community, therefore, would be determined by the resilience of individuals. Yet, a significant number of studies suggest that community resilience is not simply an aggregation of resilient individuals, meaning that the whole is more than the sum of the parts (Eachus, 2014; Norris et al., 2008; Pfefferbaum et al., 2008; Rose, 2004, 2007). That is, an accumulation of resilient individuals does not necessarily form a resilient community, nor does a resilient community guarantee that all individuals are resilient.

The literature identifies various factors that are used to characterize community resilience. Norris et al. (2008), for example, provide four indicators contributing to community resilience, including economic development, social capital, information and communication, and community competence. The economic development indicator of community resilience encompasses economic diversity and equal distribution of resources, whereas social capital indicator refers to social networks and a sense of community. Information and communication indicator, on the other hand, involves sources of information and communication infrastructure. Lastly, the community competence indicator is derived from collective efficacy and implies collective problem-solving and decision-making skills of a community.

Likewise, Pfefferbaum et al. (2008, p. 350) suggest seven factors associated with community resilience which are "connectedness, commitment, and shared values; participation; structures, roles, and responsibilities; resources; support and nurturance; critical reflection and skill-building; and communication". Connectedness, commitment, and shared values implies the sense of belonging to the community. Pfefferbaum et al. (2008) argue that communities that value diversity of individuals are likely to display greater resilience in the face of a disturbance. Participation works as a subsidiary of connectedness as it facilitates community engagement. Structures, roles, and responsibility factor has to do with organizational structure and leadership.

According to Pfefferbaum et al. (2008), communities with well-defined organizational structures and strong leadership tend to have enhanced community resilience. Resources are the aggregation of materials and infrastructures which resilient communities mobilize effectively in times of adversities. Support and nurturance imply the promotion of personal empowerment of individuals. Critical reflection and skill building factor refer to the ability to identify needs and analyze problems. The communication factor lastly encompasses effective communication among the members of the community. Although these factors have not been empirically tested, Pfefferbaum et al. (2008) discuss that communities that have higher levels of these factors tend to be more resilient to adverse circumstances.

The concept of community resilience has been adopted by various governmental organizations such as the Department of Homeland Security, Federal Bureau of Investigation (FBI), and Federal Emergency Management Agency (FEMA). FEMA, for example, incorporates The Whole Community Approach in disaster management plans, which involves all the community stakeholders to assess and determine the needs of their community and to build societal security and greater resilience (Federal Emergency Management Agency, 2011). This approach attempts to develop a shared understanding of community needs and capabilities through the engagement of residents, emergency managers, community and organizational leaders, and government officials. By using the Whole Community Approach, FEMA aims to foster the relationships among the community stakeholders as well as to build and maintain collaboration and partnerships with community leaders. Among numerous benefits, the Whole Community Approach increases individual and collective preparedness as well as strengthens social resilience. At its heart, the Whole Community Approach is based on social capital theory to empower communities to build greater social resilience.

Individual and Community Resilience as a Preparedness Strategy in Countering Terror

A considerable number of studies report community resilience as a preparedness strategy for terrorism threat. Since September 11, 2001 terrorist attacks, efforts have been dramatically increased to improve the effectiveness of emergency preparedness and response in disaster management. Some authors emphasize the particular role of community resilience in countering the impact of ongoing terrorism threat (Norris et al., 2008; Pfefferbaum et al., 2008; Sherrieb, Norris, & Galea, 2010).

Despite its unique nature, terrorism has similarities with other traumatic events such as political violence, criminal assault, mass shooting, and disaster (Miller, 2002). The consequences of terror incidents, however, are not only limited to the death and injury of the immediate victims. Rather, it involves the emotional and behavioral trauma of survivors and indirect victims. Studies suggest that psychiatric morbidity is likely to arise in individuals who are directly exposed to a terrorist incident and in individuals who are linked to victims and survivors (Pfefferbaum et al., 2008; Reissman et al., 2004). In a study regarding the mental health effects of terrorism, North and Pfefferbaum (2002) summarize findings of the empirical articles related to post-traumatic stress disorder (PTSD) in directly or indirectly exposed survivors of terrorist incidents including bombings, mass shootings, and vehicle explosions. They report that 34% of the people who were directly exposed to the Oklahoma City Bombing tend to develop PTSD symptoms in the following 6 months period of the attack. In another study, Stuber et al. (2002) find that 21% of children who were indirectly exposed to the 9/11 terrorist attacks were diagnosed with problems getting along with other children as well as 40% of the children were diagnosed with problems on concentrating and paying attention.

North and Pfefferbaum (2002) state that it is important to understand the psychological

effects of terrorist acts in order to alleviate its impact on individuals and communities. As Norris et al. (2002) point out, the extent of impact following traumatic events depends on so many factors such as personal characteristics of individuals and the severity of the exposure. In examining the predictors of resilience in the face of terrorism threat, the previous empirical studies report that demographic variables such as age, gender, and race are found to have an impact on individuals' mental health following traumatic events (Bonanno, Galea, Bucciarelli, & Vlahov, 2007; Bonanno, Rennicke, & Dekel, 2005; Hobfoll et al., 2008; Silver et al., 2002). In addition to that, a significant number of studies find that exposure to the media and severity of exposure have been found to be strongly associated with individuals' levels of stress reactions and trauma (Ahern et al., 2002).

Among other demographic variables, age and gender have been extensively studied in resilience and PTSD research. The previous research has focused predominantly on the mental health effects of terrorism on children. In a review of empirical findings of disaster research, Norris et al. (2002) conclude that school-age children are likely the most affected group compared to other age groups. Studies about the effect of age among adults report more consistent findings and reveal that older persons are at greater risk than others (Hobfoll et al., 2008). Regarding the effect of gender differences in resilience and PTSD, the majority of the previous studies indicate that females tend to be more adversely affected than males (Besser, Neria, & Haynes, 2009). Compared to age and gender, a fewer number of studies has focused on the effects of race on resilience factors associated with PTSD. One study, for example, finds that stress reactions following the 9/11 terrorist attacks remain to be high regardless of race (Schuster et al., 2001).

Media exposure of terrorist incidents may lead to aggravation of psychological

symptoms. Using the telephone survey of more than 1,000 adults in New York City, Ahern et al. (2002) find that among directly affected respondents, individuals who were frequently exposed to television images related to the 9/11 terrorist attacks are more adversely affected than those who were not. However, they find no difference between those who frequently watched terrorism-related media and those who do not among indirectly affected respondents. With regard to the severity of exposure, the literature suggests that the impact of trauma associated with negative events is not only limited to directly affected individuals. Rather, as North and Pfefferbaum (2002) maintain, it is important to consider the impact of traumatic events separately for different groups, including those directly exposed to the event, those indirectly exposed, and remotely affected populations. One study finds that individuals with direct exposure to terrorism are more likely to develop mental health problems compared to individuals with no exposure (Besser et al., 2009). The impact of exposure on the development of mental health problems is mediated by proximity to the event and the level of identification with the victims (Pat-Horenczyk, 2005)

Social Capital Theory

Social capital broadly refers to potential or actual resources that are embedded in social networks (Lin, 1999). Following the early work of Louis Hanifan (1916), Pierre Bourdieu (1986), and James Coleman (1988), research on social capital showed a dramatic increase. In 1995, with Robert Putnam's seminal work of "Bowling Alone", social capital has been popularized in multiple disciplines of social sciences. Putnam (1995, p. 2) defines social capital as "the features of social organizations such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit".

Literature reflects that higher level of social capital is often associated with better

outcomes, stronger governance, increased trustworthiness and greater civic participation (Aldrich, 2012a). Hence, communities with higher levels of social capital are more likely to overcome collective action problems that hold them back from achieving their particular goals (Olson, 1965). Lin (1999) offers four explanations as to why greater social capital will enhance the outcomes of actions. First, social capital speeds up the flow of information. He points out that social intercourse and social ties among a group of individuals offer an individual various opportunities and choices which are not otherwise available. He further states that, from the organization perspective, the same ties help an organization find about the availability of unrecognized individuals with higher levels of skills and knowledge. Such flow of information through social capital would result in a reduction in transaction cost of recruiting individuals. Second, social capital exerts influence in the decision-making process of organizations. Lin (1999) maintains that social ties communicate valuable resources and information regarding an individual to upper management that has greater discretion in the decision-making process. Third, social capital provides individuals with added resources that are beyond the individuals' personal capital. Lin (1999) states that individuals' social credentials obtained through social ties and networks indicate their accessibility to resources which may be viewed as valuable by the organizations. Lastly, social capital tends to reinforce one's self-worthiness and recognition. According to Lin (1999), a recognized individual in a social group claims entitlement to certain resources and the public acknowledges his/her claim.

A great number of studies suggest that social capital plays a crucial role in post-disaster resilience and recovery of individuals and communities (Lin, 1999). Disaster scholars hence investigate different forms of social capital to develop an understanding of an individual's behavior and community functioning following catastrophic events. The previous research

provides three different forms of social capital: bonding, bridging and, linking (Aldrich, 2012b; Aldrich & Meyer, 2015). Bonding as the first form of social capital refers to high levels of similarity in terms of demographic characteristics such as social ties between family members and friends. This type of social capital is very common in a post-disaster environment. Empirical research reports that family ties contribute to the resilience and recovery of individuals and communities following a disaster (Hurlbert, Haines, & Beggs, 2000; Meyer, 2013). Bridging is another form of social capital and implies social ties between social groups such as class and race. Research suggests that ties to organizations alter the recovery trajectory of individuals and communities (Aldrich & Meyer, 2015). Bridging social capital is also central to the resiliency of communities. Lastly, linking social capital refers to networks between regular citizens and authorities (Aldrich & Meyer, 2015).

With regard to terrorism research, some studies report that social capital is necessary for preparing individuals and communities to respond to the terrorism threat (Hausman, Hanlon, & Seals, 2007). Hausman, Hanlon, and Seals (2007), for example, find that social capital has a positive relationship with increased emergency preparedness. However, they find that higher social capital is negatively associated with increased concern about future terrorist incidents due to the fact that it increases awareness of the consequences of terrorism.

In the light of literature and empirical findings, this research assumes that community policing efforts are likely to enhance the resilience of individuals and communities for future terrorist incidents. More specifically, community policing practices such as working with community and community crime prevention, develop a trust environment where citizens have greater levels of trust in local authorities and greater civic participation. In such an environment, it is expected to see an increase in both individual and community resilience as law enforcement

agencies closely work with community constituents. In addition to that trust environment, citizens have access to commonly available resources through networks developed between other citizens and authorities which would enable them to better prepare for emergency situations as well as to help them recover faster and healthier in case of disasters. Community policing practices also facilitates the flow of information between citizens and authorities which is key for a successful intelligence gathering to respond to the terrorism threat. Moreover, community policing practices of police involvement and community crime prevention help communities develop a collective risk perception for future terrorist attacks. Communities that share a common risk perception of a future disaster have the ability to influence preparedness behaviors of their members. In other words, in a community with high civic participation and strong social networks, preparedness behaviors of citizens are likely influenced by the community's attitude toward a future terrorist attack. As the community policing enhances cohesiveness of the communities, individuals are very likely to feel empowered and more resilient for a future terrorist attack. In addition, the extent of the resiliency of individuals relies upon the extent of community policing implementation. In other words, individuals tend to be more resilient to the degree that community policing programs are successfully implemented. Because, as a community places importance on community policing philosophy, citizens as members of the community will have an opportunity for greater civic participation which is considered to be associated with increased resilience. In the light of this discussion and social capital theory, the following hypotheses are developed:

> *Hypothesis 1: The higher the citizen's perception of police involvement in the community, the higher the citizen's resilience for a future terrorist attack.*

> *Hypothesis 2: The higher the citizen's perception of community crime prevention, the higher the citizens' resilience for a future terrorist attack.*

Hypothesis 3: Citizens living in a city with a greater community policing implementation tend to have relatively higher resilience for a future terrorist attack than citizens living in a city with a limited community policing implementation.

Data and Methodology

The study draws on two different data sources gathered from respectively through an online survey conducted in the cities of Arlington and Frisco, Texas between the dates of May 20 and June 26, 2019, and the Law Enforcement Management and Administrative Statistics (LEMAS). An online questionnaire was developed on Qualtrics and distributed to the citizens living in either of these two Texas cities through the Amazon Mechanical Turk (MTurk) platform. The LEMAS survey which has been periodically collected from the state and local law enforcement agencies since 1987 was used to develop a scale of community policing implementation. Based on this scale, Arlington was selected to represent the cities with a greater community policing implementation and Frisco was selected to represent the cities with a limited community policing implementation. These cities show similar socio-demographic characteristics and are located in the same region which makes these two cities comparable in terms of the community policing implementation.

Out of 1178 attempts to take the survey on the Mturk platform, 348 respondents were able to participate in the survey. However, after a list-wise deletion, a sample of 338 was obtained for the analysis of this study. The respondents in the sample are roughly representative of the population which is desirable for generalizability of this research (see Appendix A for the detailed data collection and Appendix B for comparison of demographic characteristics of the sample and population)

The current study employs ordinary least squares (OLS) regression analysis to assess how the citizen's perception of community policing influences citizen's resilience for a future terrorist

attack. Before conducting multivariate analysis, all appropriate diagnostic tests were performed.

Robust standard errors were reported to account for the potential heteroscedasticity of the error

terms in all models (Carroll & Ruppert, 1982; Wilcox & Keselman, 2004). The dependent

variable is perceived resilience of citizens for a future terrorist attack. The main independent

variables are working with community, community crime prevention, and city. Working with

community and community crime prevention were adopted from the literature and represent the

core of the concept of community policing (Xu et al., 2005). City variable was included to

explore the effect of variation in the community policing implementation on citizen's resilience

for a future terrorist attack. A set of control variables were also included in models. Four models

were developed: three separate models were developed for each the hypothesis and a full model

was developed to run all the variables simultaneously.

Dependent Variable

The dependent variable – *perceived resilience* – was operationalized as "a community's

effective protection from, quick response to, and long-term recovery from a future terrorist

attack" based on an extensive review of resilience literature (Bourque, 2007). A set of question

was used to measure the three components of perceived resilience at the individual, local, state,

and federal government levels, including protection component, response component, and

recovery component. To measure the protection component of the perceived resilience, the

respondents were asked: "How sure are you that you/the local government/the state

government/the federal government can protect you from a future terrorist attack?" Answer

options were a five-point Likert scale (1 = extremely sure, 5 = not at all sure). The answer

categories were reversed, and re-coded as higher values represent greater assurance about the

given statement. A protection scale was created using the four survey items. A reliability test was

performed to assess the internal consistency of the items used to create the protection scale (Cronbach's α=0.88).

The response component was also measured with the question of "How sure are you that you/the local government/the state government/the federal government can respond quickly to a terrorist attack?". Responses were measured on a five-point Likert scale (1 = extremely sure, 5 = not at all sure). The response categories were reverse coded. The response scale had also high internal consistency with a Cronbach's alpha of 0.87.

Similarly, to measure the recovery component of perceived resilience, the respondents were asked "How sure are you that you/the local government/the state government/the federal government could recover effectively from a terrorist attack over the long-term?" with five-point Likert scale response options (1 = extremely sure, 5 = not at all sure). This survey item was reverse coded to indicate that higher values represent greater assurance about the statement. Similarly, the questions were summed to create a recovery scale. The Cronbach's alpha was 0.88 for this scale.

An additive index of perceived resilience was created using the protection, response, recovery scales. The reliability of the index was assessed with Cronbach's alpha (α=0.88) suggesting that it has a high internal consistency. Perceived resilience index ranged from 12 to 60 (mean = 34.87, sd = 10.90).

Independent Variables

Working with community, *community crime prevention, and city* are the main independent variables included in the models. Working with community variable was operationalized by using a single survey item. The respondents were asked to indicate the extent to which they agree or disagree with the following statement: "Police officers are working with

residents to solve neighborhood problems". Answer options to this variable were a five-point

Likert scale (1 = strongly agree, 5 = strongly disagree). Response categories were reverse coded

to indicate that higher values represent greater agreement about given the statement.

  Community crime prevention is an additive index of two survey items. The respondents

were asked "To what extent are you agree or disagree with the following statements?" on a scale

ranging from 1 = strongly agree to 5 = strongly disagree. The first statement was "There are

enough police officers working on crime prevention (such as school crime education programs

and citizen and safety training opportunities)". The second statement was "There are enough

police officers patrolling streets". Again, the response categories were reverse coded, meaning

that higher values indicate greater agreement about the given statements. A scale reliability test

with Cronbach's alpha was conducted to see how closely the items were related to create an

index. The test yielded a Cronbach's alpha of 0.74 suggesting acceptable reliability. Community

crime prevention index ranged from 2 to 10 (mean = 6.44, sd = 2.03).

  City variable was a dichotomous variable measured by a single survey item. Respondents

were asked to indicate the city they live in. Response categories included Frisco, Arlington, and

None. Respondents who selected the "none" response category were removed from the sample

and it was re-coded as 1=Arlington and 0=Frisco. City variable was included in the analysis

since the two cities have a different level of community policing implementation.

Control Variables

  Drawing on early research of resilience, *age, gender*, *race*, *education*, *income,* and

marital status were included in this study as control variables. Among other demographic

variables, age and gender have been extensively studied in resilience and PTSD research. A

relatively large body research has focused predominantly on the mental health effects of

terrorism on children (Norris, Friedman, Watson, et al., 2002). In assessing "the behavioral consequences of terrorism" using a meta-analysis, DiMaggio and Galea (2006) reviewed published and unpublished articles on behavioral and psychological consequences of terrorist incidents since 1980 and reported that school-age children tend to be more adversely affected than other age groups following terrorist attacks. They further argued that the risk of developing PTSD symptoms is also more likely to increase during the middle ages. Research examining the effect of age on resilience and PTSD among adults revealed that older persons are at greater risks than others (Hobfoll et al., 2008). Age was measured with a single survey item that has 8 response categories.

Gender has also previously found to be related to resilience (Hobfoll et al., 2008; Silver et al., 2002). A wide range of research suggested that females are at greater risk than males after a traumatic event (Bonanno et al., 2005; DiMaggio & Galea, 2006; Norris, Friedman, Watson, et al., 2002). Using a representative sample of adults who were subjected to continuing terrorist attacks in Israel and another sample of adults with no exposure, Besser et al. (2009) found that females are more likely to develop PTSD than males. However, in a study about the resilience of survivors following the 9/11 terrorist attacks, Bonanno et al. (2005) found that gender is not a significant predictor of resilience. Interestingly, in another study examining the role of demographic characteristics in predicting psychological resilience, Bonanno et al. (2007) found that women are more likely to be less resilient, compared to men. Considering the conflicting findings of previous research, gender was included as a control variable in the models. Gender variable was measured with a single survey item (1 = male, 2 = female). It was re-coded as 1 = male and 0 = female.

Compared to age and gender, fewer studies have concentrated on the effect of race and

ethnicity in explaining the resilience of individuals. Following the 9/11 terrorist attacks, a study that uses a telephone survey of adults living in New York State, New Jersey, and Connecticut reported that Asians tend to be three times more resilient than Whites (Bonanno et al., 2007). Yet, another study concluded that stress reactions following the 9/11 terrorist attacks remain to be high regardless of race (Schuster et al., 2001). Similarly, in their meta-analysis of the behavioral impacts of terrorism, DiMaggio and Galea (2006) argued that the results were inconclusive regarding the effect of race on resilience. In light of the previous work, race was included in the models as a control variable. It was measured with a single survey item that has 6 response categories. The fifth category (Native Hawaiian/Pacific Islander) were removed due to no response from the participants.

Likewise, the literature provides mixed findings for the effect of education on resilience. In general, low education is associated with an increased risk of PTSD as well as low resilience. Besser et al. (2009) confirmed that individuals with low education are more likely to develop PTSD symptoms following terrorist attacks. By contrast, however, Bonanno et al. (2007) reported that education has a negative relationship with resilience. Specifically, they found that individuals with less than a high school degree are twice as likely to be resilient than individuals with a college degree. To control for the effect of education, it was included in this current study as a control variable. It was a categorical variable with 7 response categories (1 = less than high school, 7 = doctorate).

Lastly, income and marital status were added in the models as reported by some research to influence resilience. Regarding the effect of income on resilience, the previous research suggested that although income level is a significant predictor of resilience when tested in isolation, it accounts for a little or not at all variation in resilience when tested with other socio-

demographic variables (Bonanno et al., 2007). Yet, loss of income has been found to be significantly associated with resilience. Bonanno et al. (2007) found that following the 9/11 terrorist attacks, individuals with income loss were likely to be less resilient than individuals with no income loss. Studies with respect to marital status report that being married is associated with increased resilience (Butler et al., 2007). However, there is a scarcity of empirical research on the role of marital status in explaining resilience. Hence, income and marital status variables were added in this study as control variables. Both the income and marital status variables were a categorical variable with 5 response categories. Marital status variable was re-coded as 1 = married and 0 = not married.

Descriptive Statistics

Table 5 displays the descriptive statistics of the sample used in the analyses. The mean score of the resilience index is 34.87 and it ranges from 12 to 60. It suggests that on average, the participants reported a moderate level of resilience. The respondents also mostly agree that police officers are working with the residents to solve neighborhood problems (mean = 3.40, range = 1 to 5). In addition, the respondents' perception of community crime prevention is averaged around 6.44 on the index, suggesting that the respondents have a community crime prevention perception just at the midpoint on the index ranging from 2 to 10.

Regarding the demographic characteristics, males constitute a larger percentage of the sample by 53% compared to females (47%). The average age of the respondents is between 25 and 34 years old. Blacks/African Americans constitute 16% of the sample, while Hispanics/Latinos and Asians respectively constitute 15% and 9% of the entire sample. Nearly 49% of the respondents reported that they are married.

Table 5: Descriptive Statistics

Variables	N	Mean or %	SD	Min	Max
Resilience	338	34.87	10.90	12	60
Working with Community	338	3.402	1.009	1	5
Community Crime Prevention	338	6.435	2.026	2	10
Arlington	338	67.8%	0.468	0	1
Male	338	52.7%	0.500	0	1
Age	338	3.210	0.993	2	7
Income	338	3.284	1.090	1	5
Education	338	4.328	1.236	1	7
Black/African American (White)	338	15.7%	0.364	0	1
Hispanic/Latino (White)	338	14.5%	0.353	0	1
Asian (White)	338	9.47%	0.293	0	1
Other (White)	338	1.18%	0.108	0	1
Married (1=married, 0=Non-married)	338	48.5%	0.501	0	1

Table 6 presents the correlation matrix of the variables used in the analyses. The correlation matrix shows that there is no multicollinearity between the variables. The highest correlation is between income and education variables with a value of 0.4. However, it still indicates that the variables are not strongly correlated to generate multicollinearity since the value is below 0.70.

Table 6: Correlation Matrix of All Variables in Analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Resilience	1.000												
(2) Working with Community	0.311	1.000											
(3) Community Crime Prevention	0.288	0.332	1.000										
(4) Arlington (1=Arlington, 0=Frisco)	0.017	-0.089	-0.071	1.000									
(5) Male (1=Male, 0=Female)	0.225	0.055	0.040	-0.020	1.000								
(6) Age	-0.021	0.069	-0.097	-0.071	0.040	1.000							
(7) Income	0.109	-0.007	-0.006	-0.117	0.128	0.274	1.000						
(8) Education	0.149	0.091	0.051	-0.052	0.099	0.169	0.400	1.000					
(9) Black/African American (White)	0.096	0.054	0.032	0.106	-0.064	0.048	-0.053	0.011	1.000				
(10) Hispanic/Latino (White)	-0.105	-0.106	0.003	0.014	0.003	-0.138	-0.123	-0.130	-0.178	1.000			
(11) Asian (White)	0.010	-0.079	-0.030	0.007	0.084	-0.058	0.018	0.070	-0.139	-0.133	1.000		
(12) Other (White)	-0.099	-0.044	0.071	0.076	-0.061	0.087	-0.003	-0.007	-0.047	-0.045	-0.035	1.000	
(13) Married (1=Married, 0=Non-married)	0.146	0.123	-0.024	-0.204	0.150	0.302	0.290	0.197	-0.060	0.004	-0.112	-0.052	1.000

Results

The regression results of the relationship between two community policing variables (working with community and community crime prevention), a set of control variables and citizen's perceived resilience for a future terrorist attack are presented in table 7. Four models were developed: the first model includes working with community variable as a predictor of citizen's perceived resilience, while the second model includes another community policing strategy of community crime prevention as a predictor of perceived resilience. A third model was developed to explore the effect of variation in the community policing implementation on perceived resilience. The final model is the full model developed to test all the variables simultaneously. The explanatory power of models increases, as the full model has the highest R-squared with a value of 0.23.

Table 7: OLS Regression Analysis Predicting Resilience

	Model 1	Model 2	Model 3	Model 4
Working with Community	3.006***			2.268***
	(0.597)			(0.607)
Community Crime Prevention		1.490***		1.145***
		(0.298)		(0.299)
Arlington (1=Arlington, 0=Frisco)			1.067	1.873
			(1.287)	(1.220)
Male (1=Male, 0=Female)	4.068***	4.060***	4.335***	3.867***
	(1.177)	(1.159)	(1.201)	(1.150)
Age	-1.209**	-0.756	-1.115*	-0.898
	(0.596)	(0.596)	(0.604)	(0.583)
Income	0.593	0.324	0.341	0.580
	(0.517)	(0.547)	(0.554)	(0.517)
Education	0.638	0.687	0.859	0.553
	(0.513)	(0.506)	(0.521)	(0.499)
Black/African American (White)	2.865*	2.725*	2.902*	2.414
	(1.661)	(1.609)	(1.723)	(1.633)

(table continues)

	Model 1	Model 2	Model 3	Model 4
Hispanic/Latino (White)	-1.794	-2.771	-2.808	-2.112
	(1.774)	(1.781)	(1.818)	(1.752)
Asian (White)	0.661	0.146	-0.254	0.721
	(1.887)	(1.790)	(1.931)	(1.837)
Other (White)	-5.866	-9.493*	-7.462*	-8.606*
	(4.268)	(4.923)	(4.389)	(4.659)
Married (1=Married, 0=Not married)	1.974	2.668**	2.808**	2.476*
	(1.312)	(1.269)	(1.322)	(1.294)
Constant	20.533***	20.311***	29.311***	13.827***
	(3.142)	(3.161)	(3.089)	(3.346)
Observations	338	338	338	338
R-squared	0.183	0.184	0.111	0.225

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Examining the results for model 1 suggests that working with community variable is significantly and positively associated with resilience. This result shows that on average, a citizen's perceived resilience for a future terrorist attack increases by 3.01 on perceived resilience index with each additional unit increase in citizen's perception of police involvement in the community. In other words, as the citizen's perception of that police officers are working with residents to solve neighborhood problems increases, it is expected to see an increase in citizen's perceived resilience for a future terrorist attack. The demographic characteristics of gender, age, race (only Black/African American) were also found to be significantly associated with resilience in model 1. Gender appeared to be the strongest predictor of resilience among other demographic variables. The results suggest that on average, males tend to report 4.07 units more in resilience index than females, all else being equal. That is, males tend to be more resilient for a future terrorist attack than females. This finding is consistent with the previous studies. Similarly, this study confirms that age is negatively associated with resilience, as older individuals tend to be less resilient for a future terrorist attack. Among race categories, only

Black/African American was found to be a significant predictor of resilience at p<0.1. Contrary to the earlier research, Blacks/African Americans appeared to be more resilient for a future terrorist attack than Whites.

The second model was developed to test the community crime prevention hypothesis. In this model, community crime prevention was found to be significantly and positively associated with resilience. The results suggest that on average, citizen's perceived resilience for a future terrorist attack increases by 1.5 on the resilience index with each additional unit increase in citizen's perception of community crime prevention index. More specifically, as the extent of citizen's perception of crime prevention increases, resilience for a future terrorist attack is more likely to increase as well. In addition, males tend to be more resilient for a future terrorist attack than females. Being married is significantly associated with higher resilience which is consistent with the previous studies. Again, this model also shows that Blacks/African Americans tend to be more resilient for a future terrorist attack than Whites. Interestingly, the Other race category was also found to be significant in this model. Yet, it is negatively associated with resilience.

The third model was developed to test the third hypothesis. The results show that the Arlington variable is not associated with resilience. There is no statistically significant difference in the level of perceived resilience between the citizens living in Arlington and the citizens living in Frisco. Here, again gender, age, marital status, Black/African American and other race categories were found to be significantly associated with resilience.

The last model is the full model and includes all the variables. Working with community and community crime prevention variables remained to be significant predictors of resilience, while the Arlington variable was not found to be significant. Overall, the results support the first and second hypotheses. As confirming the first hypothesis, the results suggest that as the extent

of citizen's perception of police involvement in the community increases, resilience for a future

terrorist attack is more likely to increase as well. Citizen's perception of community crime

prevention has also a positive and significant effect on resilience. Males are still likely to be

more resilient than females in this model. The other race category also remained as a significant

factor affecting resilience in this model. Lastly, married individuals reported to be more resilient

than non-married individuals. However, it is only significant at p<0.1.
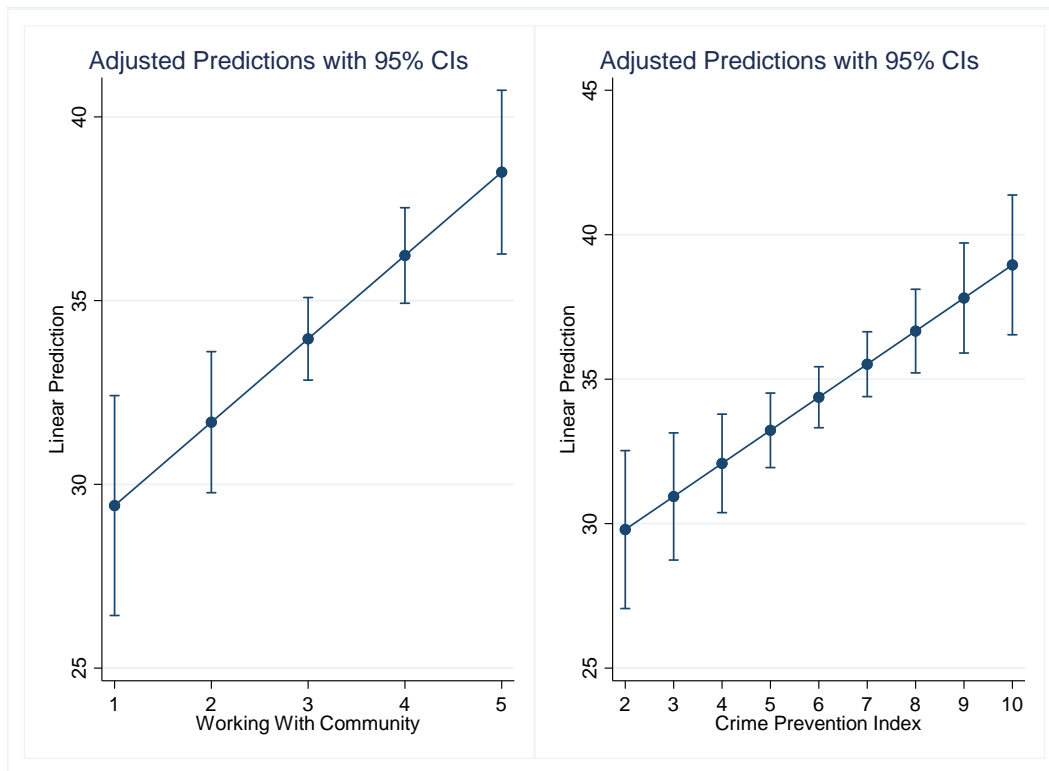
Figure 3: Marginal effects of working with community and community crime prevention index on resilience index

Figure 3 displays the graphical description of the marginal effects of working with

community and community crime prevention index on the resilience index. According to the

graph on the left, as the citizen's perception of police involvement in the community increases

from its minimum to its maximum, resilience for a future terrorist attack tend to increase from

29.42 to 38.50 on resilience index (30.9%). Similarly, the graph on the right indicates that as a

citizen's perception of community crime prevention increase from its minimum to its maximum, resilience for a future terrorist attack is more likely to increase from 29.79 to 38.96 (30.8%).

Discussion and Conclusion

The main thrust of this current study was to provide insight into the extent to which community policing could be a strategy in building up resilience in the face of terrorism. More specifically, this research assumed that various community policing instruments, namely working with community and community crime prevention are likely to enhance citizen's resilience for a future terrorist attack. The social capital theory was utilized to understand the relationship between community policing and resilience. It was argued that community policing practices could lead to a trust environment where citizens have greater civic participation and could access to commonly available resources through networks and collaboration developed through community policing. Citizens' access to more resources would enable them to better prepare for emergency situations, especially for terrorist incidents. Furthermore, it would also help citizens recover faster and healthier in the case of natural and man-made disasters. This study also argues that community policing would help communities develop a collective risk perception for future terrorist attacks. Communities that share a common attitude toward a future terrorist attack would be expected to influence preparedness behaviors of their members.

From the law enforcement perspective, community policing would facilitate the flow of information between police officers and the public. A wide array of terrorism research argues that information flow is key for a successful intelligence gathering in the fight against the terrorism threat (Riley, Treverton, Wilson, & Davis, 2005). Community policing which adopts a more decentralized organizational structure would serve as a valuable tool for intelligence gathering at the local and state government levels. It would help authorities both at the local and

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national levels detect and deter future terrorist incidents. Given that, this research developed two hypotheses for each of the community policing practices and a third hypothesis to explore the effect of variation in community policing implementation on resilience.

Overall, this research finds robust evidence to support both of the hypotheses related to each of the community policing practices. Working with community variable which was created to test the first hypothesis was found to be significantly associated with resilience. The results suggest that as the extent of citizen's perception of police involvement in the community increases, resilience for a future terrorist attack is also likely to increase. This finding confirms the earlier works of social capital which suggest that a higher level of social capital is often associated with increased resilience and recovery of individuals and communities (Aldrich, 2012a; Buckland & Rahman, 1999). Working with community variable was purposefully created to capture the collaboration and problem-solving components of community policing. Increased collaboration and network opportunities derived from community policing are associated with enhanced resilience. Police officers trained in community policing increase citizens' awareness about opportunities and resources to be used for emergency preparedness which might induce citizens to feel more resilient.

Community crime prevention was also found to have a significant and positive effect on resilience, suggesting that as the extent of citizen's perception of community crime prevention increases, their resilience for a future terrorist attack also tends to increase. A very simple explanation for this finding might be that citizens who see police officers patrolling on the streets might feel themselves safer and more resilient for a future terrorist attack. The presence of police officers in neighborhoods matters for citizens to be more resilient.

Given the findings of this study, local governments can focus on various community

policing practices to enhance the resilience of the citizens for emergency situations, especially for terrorism. Law enforcement agencies should provide training for police officers to increase their social interactions and communication skills. Law enforcement agencies should also be public-friendly and encourage citizens to share any problems with the police. The success of community policing in building up resilience relies upon a joint effort of political leaders, police officers, and community stakeholders.

There are several limitations of this study. This study incorporates only individual-level predictors of resilience. However, a line of research points out that there are other factors at the community-level affecting resilience (Eachus, 2014; Norris et al., 2008; Pfefferbaum et al., 2008). Hence, future studies might include variables at the community-level in examining resilience. Another limitation is related to the definition of resilience. The literature is inconclusive about a widely-accepted definition of resilience. The lack of a clearly and concisely defined definition of resilience creates a serious limitation for a consistent operationalization of the phenomenon. It is essential for future studies to explore a diverse array of resilience definitions.

CHAPTER 4

THE IMPACT OF COMMUNITY POLICING ON CITIZEN SATISFACTION WITH POLICE

The terrorist attacks of September 11, 2001 have challenged the preeminence of community policing. Many law enforcement agencies have tempted to return to a traditional model of policing which is more militarized in reaction to the ongoing war on terror approach (Liederbach, Fritsch, Carter, & Bannister, 2008; Murray, 2005; Pelfrey Jr, 2005). As the threat of terrorism still exists today, scholars have raised some legitimate questions about the effectiveness of community policing. The efforts to adopt and implement community policing practices have lost momentum as the threat to national security presents new challenges.

As law enforcement agencies have begun to retreat from community policing and have shifted towards a traditional model of policing since the 9/11 terrorist attacks, the nature of terrorism has also changed. In reaction to the centralized counter-terrorism efforts of the federal government, terrorist groups have adjusted their organizational structure and operational tactics. Terrorist groups have been adopting a more decentralized organizational structure where the operational authority is diffused. They also no longer carry out complicated terrorist attacks backed by sophisticated operational plans. Rather, they shift their plans toward the use of individuals who require no extended support from the organized groups to perpetrate attacks in the last 15 years. The growing number of lone wolf terrorists who act alone without receiving assistance from any organized groups presents new formidable challenges as they are difficult to be traced and prevented. In this new environment, law enforcement agencies may want to embrace the existing practices of community policing rather than returning to the traditional model of policing or developing new counterterrorism strategies. Because, as community policing emphasizes citizen involvement in public safety issues, it helps law enforcement

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agencies conduct intelligence gathering and information sharing with the members of the community. Hence, citizens' satisfaction with the police is of critical importance to successfully implement community policing and to respond to the threat of new terrorism. Being responsive to citizen concerns plays a key role in countering the impact of terrorism threat since it encourages citizens to share information about public safety issues. Consistent with this, a significant number of research reports that citizens who are satisfied with the police are more likely to cooperate and collaborate with the police (Hawdon & Ryan, 2003; Wehrman & De Angelis, 2011)

Most research suggests that citizen satisfaction with the police is a determinant of how successfully community policing programs is implemented (Liederbach et al., 2008). Hence, many law enforcement agencies implementing a wide array of community policing practices aim to increase citizen satisfaction as well as to encourage people to contact police about public safety issues. Unlike the traditional model of policing which focuses on crime control as a measure of police performance, community policing relies on citizen evaluations and satisfaction with police as a measure of police performance. Higher citizen satisfaction indicates the extent to which police officers perform well, whereas lower citizen satisfaction implies that police officers working in that particular neighborhood perform poorly. The level of citizen satisfaction with police has certain implications on counterterrorism efforts at the local government level. The successful implementation of community policing which increases the citizens' levels of satisfaction with the police will foster a mutual trust environment between police and citizens. Such a trust environment will encourage citizens to cooperate and collaborate with the police about the public safety issues.

Although there has been a growing literature on citizen satisfaction with police across

various disciplines, the research on citizen satisfaction with police in a community policing environment is limited. Early research on citizens' attitude toward police mostly focused on the socio-demographic factors found to be associated with the variation in the level of satisfaction with police (Brown & Coulter, 1983; DeHoog, Lowery, & Lyons, 1990; Fitzgerald & Durant, 1980; Van Ryzin, Muzzio, & Immerwahr, 2004). Yet, the use of socio-demographic factors as independent determinants of citizen satisfaction with police has challenged by recent research. Today, more research adds contextual factors such as neighborhood characteristics, fear of crime, victimization, and disorder in the analysis while controlling for the effect of demographic factors. According to this line of research, contextual factors tend to reduce or eliminate the effects of socio-demographic factors on citizens' perception of police in predictive models (Kusow, Wilson, & Martin, 1997; Reisig & Parks, 2000). Yet, a third line of research incorporates personal experiences with the police to account for the variations in the level of satisfaction with the police. The nature, quality, and quantity of individuals' experiences with the police are identified by many studies as factors affecting the levels of satisfaction with the police (Huebner, Schafer, & Bynum, 2004; Karakus, McGarrell, & Basibuyuk, 2011; Schafer, Huebner, & Bynum, 2003).

Within this context, this research aims to examine the extent to which community policing practices can increase citizen satisfaction with the police. More specifically, the current study tests whether the working with community and community crime prevention practices which represent the core of the community policing concept influence citizen's satisfaction with the police, using survey data collected from two Texas cities of Arlington and Frisco. Additionally, this study examines how the variation in the level of community policing implementation is associated with citizen satisfaction with police. In particular, this study

empirically tests the difference in the level of satisfaction with the police between the citizens living in Arlington that has relatively greater community policing implementation and the citizens living in Frisco that has a limited community policing implementation. This study is organized in the following manner: The next section provides a review of the existing literature on citizen satisfaction with police and community policing. The expectation disconfirmation theory is presented next in explaining how community policing influences citizen satisfaction with police. Following the theory section, the data and methodology of this research are introduced, and the findings are presented. This research concludes with the discussion of the important findings and implications for the local governments and law enforcement agencies.

Literature Review

The American models of policing have gone through significant changes over the last four decades. There has been a shift from a bureaucratic, incident-oriented style of policing to a community-oriented policing model. This new policing model heavily relies on community involvement and problem-solving to identify and understand the underlying causes of crime, disorder, and fear in the community, in contrast to the traditional policing models which focus on law enforcement and order maintenance (Gill et al., 2014). Despite the ongoing debate over the definition of community policing concept, at its core, community policing encompasses three important elements that are involved in any community policing practices: community partnerships, problem-solving, and organizational transformation (Fisher-Stewart, 2007; Skogan, 2006). This approach is distinct from the traditional policing models in a way that it requires a flattened management in order to empower frontline police officers who directly engage the public (Weisburd, Lum, & Yang, 2003).

As community policing has been widely adopted in the United States and European

countries, it has received scholarly attention in terms of the effect of community policing on various subjects such as crime, disorder, fear of crime, trust in police, and citizen satisfaction with police. Although previous studies have reported limited direct impact of community policing in reducing crime (MacDonald, 2002; Xu et al., 2005), most research, however, suggests that it has a positive influence on citizen satisfaction with police and trust in the police (Yuksel & Tepe, 2013). Yet, there are several challenges in assessing the impact of community policing on such outcomes, including lack of a clear conceptual definition of community policing and broad interpretation of practices classified as community policing (Gill et al., 2014).

A relatively large body of research has been conducted on community partnership element of community policing since it has become a dominant approach in policing. Community partnerships refer to collaborative partnerships between community members and law enforcement organizations (Fisher-Stewart, 2007). Most research suggests citizen satisfaction with police as a determinant to assess how successfully community policing is implemented (Liederbach et al., 2008). Positive citizen evaluations are therefore of critical importance in assessing the effectiveness of community policing. Community policing practices, therefore, aims to increase citizens' satisfaction with police and to build a trust environment where citizens share information about public safety issues.

Previous research on citizen satisfaction reports a set of variables associated with the level of satisfaction with the police, including socio-demographic characteristics, neighborhood characteristics, feeling of safety, and police contact. These variables are categorized into three broad factors, each represents one of the dimensions of citizen satisfaction with the police: the demographic factors, contextual factors, and experiential factors (Karakus, McGarrell, &

Basibuyuk, 2011). Each of these factors accounts for variation in the level of citizen satisfaction with police.

Determinants of Citizen Satisfaction with Police

The Demographic Factors

A substantial body of research has extensively studied socio-demographic characteristics, including race, gender, age, marital status, income, and education in explaining the variation in citizen satisfaction with police (Brown & Coulter, 1983; DeHoog et al., 1990; Fitzgerald & Durant, 1980; Karakus et al., 2011; Van Ryzin et al., 2004; Yuksel & Tepe, 2013). Among these determinants of citizen satisfaction with police, race has been subject to relatively a large body of research. According to those who have studied the interaction between police and different race groups, race and level of satisfaction with police is strongly related, as whites show more positive attitude toward the police than non-whites (Kusow et al., 1997; Parks, 1984; Weitzer & Tuch, 2005). In a study regarding the citizen perceptions of police services in a Midwestern community, Schafer, Huebner, and Bynum (2003) find that African Americans tend to have more negative attitudes for police services than Whites. In contrast to their findings, Frank et al. (1996) reveal that the Black population in Detroit holds a more positive attitude for the police than Whites. A possible explanation for this finding is that as they argue, Blacks hold the majority population in Detroit, which is not the case in the previous study and almost 50% of the police officers in Detroit are Black.

Gender has relatively less consistent findings compared to other demographic characteristics. While the conventional wisdom suggests that males tend to commit more crime, and thus are expected to be less satisfied with the police, empirical research reports that the difference in the level of satisfaction with the police between males and females is not a function

of gender attributes (Campbell & Schuman, 1972). However, some research reports that gender difference mediates the effect of prior victimization on satisfaction with the police (Tewksbury & West, 2001). Accordingly, age is identified as one of the strong predictors of citizen satisfaction with police. The findings consistently show that age is positively associated with the level of satisfaction with police. Sullivan, Dunham, and Alpert (1987), for example, find that younger individuals show less favorable attitudes toward the police than older individuals. A possible explanation for this finding is that younger individuals tend to have more negative contacts with the police officers than older individuals do. Thus, those negative contacts make them less satisfied than older individuals. Marital status is relatively less studied, compared to other socio-demographic characteristics. Using the data from World Values Surveys between the years of 1995 and 1997, Cao and Solomon Zhao (2005), for example, find that married citizens tend to show more positive attitudes toward the police than unmarried individuals.

In line with the socio-demographic characteristics, income and education have also been studied as predictors of citizen satisfaction with the police. Despite the inconsistent findings with regard to the relationship between income and level of satisfaction with the police, the general finding is that income is positively associated with satisfaction with the police. Similarly, education has also been studied as determinants of satisfaction with police. Karakus, McGarrel, and Basibuyuk (2011) report that education has a negative relationship with satisfaction with police. That is, as the level of education increases, the level of satisfaction with police tend to decrease. Because, as they argue, individuals who have higher levels of education would value freedom and they would think that police officers are a barrier for their freedom. Therefore, this induces educated people to demonstrate less favorable attitudes toward the police.

Recent research on citizen satisfaction with police has challenged the use of socio-

demographic variables independently as predictors of satisfaction with police. Today, more research utilizes the contextual factors along with the demographic factors in examining citizen satisfaction with police.

The Contextual Factors

Another line of research adds neighborhood characteristics such as quality of neighborhood, fear of crime, victimization, and disorder into the analysis of police-citizen interactions (Karakus et al., 2011; Yuksel & Tepe, 2013). According to this line of research, the neighborhood in which police and citizens interact influences citizens' perception of police (Mastrofski et al., 2002). Several researchers maintain that neighborhood characteristics tend to reduce or eliminate the effects of socio-demographic characteristics on citizens' perception of police in predictive models (Kusow et al., 1997; Reisig & Parks, 2000).

A wide variety of research today incorporates neighborhood characteristics into predictive models of citizen satisfaction with police. Karakus, McGarrel, and Basibuyuk (2011) discuss that residents' satisfaction with the quality of their neighborhood affects their attitudes toward the police. In a study regarding confidence in police in assessing the performance of police, Ren et al. (2005) argue that individuals who are less satisfied with their neighborhood tend to be less satisfied with the police as well. They suggest that voluntary contacts with the police through community policing programs are expected to increase citizens' confidence in the police and therefore in citizens' satisfaction with the police. Chao and Zhao (2005), on the other hand, contend that the size of a community affects the level of satisfaction with the police. More specifically, they argue that individuals who live in big cities tend to show less favorable attitudes toward the police than individuals who live in small cities or suburbs. An explanation for their assertion might be that individuals living in big cities feel alienated by the police.

Social cohesion and community attachment are also among the factors studied by a limited amount of research in explaining the variation in the level of satisfaction with the police (Dowler & Sparks, 2008; Hawdon & Ryan, 2003). In general, neighborhoods with higher levels of social cohesion tend to report a positive perception of police services. The fear of crime, victimization, and neighborhood disorder are the other common predictors of satisfaction with police. Most research reports a negative relationship between these factors and citizen satisfaction with police (Karakus et al., 2011; Schafer et al., 2003).

The Experiential Factors

A third line of research incorporates personal experiences with the police to account for the variations in the level of satisfaction with the police. The nature, quality, and quantity of individuals' experiences with the police are identified by many studies as factors affecting the levels of satisfaction with the police (Huebner et al., 2004; Karakus et al., 2011; Schafer et al., 2003). Karakus, McGarrel, and Basibuyuk (2011) contend that individuals with negative contacts with the police (i.e. traffic citations) tend to report more negative attitudes toward the police than individuals with positive contacts with the police (i.e. calls for services or requesting information). Similarly, Schafer, Huebner, and Bynum (2003) maintain that to the extent to which an individual has negative contact with the police, he/she tends to report a less positive attitude toward the police. Yet, as they further argue, the impact of positive contacts appears to have a limited effect on satisfaction with the police. Contrary to their findings, Dowler and Sparks (2008) conclude that contact with police is positively associated with satisfaction with the police when the effects of socio-demographic and neighborhood characteristics are controlled.

The frequency of contact is also found to have an impact on citizen satisfaction with police. Carter (1985), for example, reveals that as the frequency of contact with the police

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increases, the less favorable evaluations would be expressed by individuals. In addition to personal contacts with police, several scholars explore the impact of indirect contacts with police (Schafer et al., 2003). Karakus, McGarrel, and Basibuyuk (2011, p. 308) identify the indirect contacts as "the experiences of friends, family members, acquaintances, neighbors, and the media". The previous research suggests that indirect contacts need to be included in predictive models of citizen satisfaction with police.

<div align="center">Expectation Disconfirmation Theory</div>

Recent research has examined citizen satisfaction with government goods and services through the help of expectation disconfirmation theory (aka, expectation confirmation theory), "a model suggesting that satisfaction judgments are formed through a cognitive process relating prior expectations to perceived performance and the confirmation or disconfirmation of expectations relative to performance" (Morgeson, 2012, p. 289). Expectation disconfirmation theory encompasses four constructs, including expectations, perceived performance, disconfirmation, and satisfaction.

Expectations refer to an individual's anticipation associated with a product or service. Van Ryzin (2013, p. 598) explains expectations as "an adaptation level of sorts against which consumers contrast their experiences of service quality, in the same way that people's perceptions of hot or cold are based in part on the temperature to which their bodies have already adjusted". Perceived performance, on the other hand, constitutes an individual's perception of the actual performance of goods or services. Disconfirmation is derived from the comparison of expectations and perceived performance. It is an individual's judgment with respect to a good or service based on an implicit comparison of prior expectations with perceived performance. The resulting difference between expectations and perceived performance can be either positive if

perceived performance is above prior expectations or negative if perceived performance is under prior expectations. Satisfaction lastly implies to the extent to which an individual is content with a good or service. According to expectation disconfirmation theory, perceived performance and disconfirmation has a direct effect on an individual's satisfaction with a good or service, while expectations indirectly affect satisfaction.

A wide variety of research has studied expectation disconfirmation theory in explaining customer satisfaction with products and services in the private sector (Anderson & Sullivan, 1993; Oliver, 1977, 1980). Recently, the theory has gained acceptance in research related to citizen satisfaction with public goods and services (Van Ryzin, 2013). It provides a theoretical foundation for empirical research on the determinants of citizen satisfaction with a wide array of government goods and services (Poister & Thomas, 2011; Van Ryzin, 2005; Van Ryzin, Immerwahr, & Altman, 2008).

Community policing is a local government service provided by law enforcement agencies. It promotes community involvement and collaboration between community members and police officers. Unlike the traditional policing model which focuses on order maintenance and crime reduction, community policing gives emphasis upon police-citizen interactions and aims to foster a positive relationship between police officers and community members. Community policing works as a bridge between police and citizens and facilitates information sharing from both sides about public safety issues. Ren et al. (2005), for example, report that citizens who are voluntarily involved in crime prevention programs of community policing indicate higher confidence in the police. Based on the previous research on community policing and the expectation disconfirmation theory, it can be argued that the implementation of various community policing practices such as citizen advisory boards, police liaison programs, door-to-

door visits, community meetings, and foot and bike patrols will result in an increase in citizen's satisfaction with police. Because community policing enables law enforcement agencies to align their performance with the expectations of the community members through interacting with the citizens. As a result, as posited by expectation disconfirmation theory, the difference between citizens' prior expectations and perceived performance of police officers will either get closed or decreased. Therefore, it is expected to see an increase in citizens' satisfaction with the police. Furthermore, the extent of satisfaction depends upon the degree that community policing practices are successfully implemented. It is expected that individuals living in a city that has relatively greater community policing implementation tend to have higher satisfaction with the police than individuals living in a city that has limited community policing implementation. Because, greater community policing implementation provides more opportunities for law enforcement agencies to understand the communities' needs better and to align their performance based on the expectations of the community members. It also provides more opportunities for the citizens to have their voice heard. By contrast, cities that partially implement community policing programs offer relatively fewer venues for citizen-police interactions. In light of the discussion here and the expectation disconfirmation theory, the following hypotheses are developed:

> *Hypothesis 1: The higher the citizen's perception of police involvement in the community, the higher the citizen's satisfaction with the police.*

> *Hypothesis 2: The higher the citizen's perception of community crime prevention, the higher the citizen's satisfaction with the police.*

> *Hypothesis 3: Citizens living in a city with greater community policing implementation tend to have relatively higher satisfaction with the police than citizens living in a city with a limited community policing implementation.*

Data and Methodology

This study draws on two different data sources: An online survey was conducted in the cities of Arlington and Frisco, Texas between May 20 and June 26, 2019 and the Law Enforcement Management and Administrative Statistics (LEMAS) survey was adopted. The unit of analysis is citizens. The online survey was developed on Qualtrics and posted on the Amazon Mechanical Turk (MTurk) platform to recruit respondents in these two Texas cities. The LEMAS survey was used to create a scale of community policing implementation. Based on this scale, Arlington was selected to represent the cities that have a relatively higher score of community policing implementation, while Frisco was selected to represent the cities that do poorly on this scale. The similarity of demographic characteristics and geographic location of these two cities also make them comparable in terms of community policing implementation.

A total of 1178 respondents attempted to take the survey on the Mturk platform. However, 348 respondents were able to participate in the survey. After a list-wise deletion, a final sample of 338 was obtained. The sample is roughly representative of the population. (see Appendix A for the detailed data collection and Appendix B for the comparison of demographic characteristics of the sample and population).

The present study uses ordered logit regression to test the hypotheses. Before conducting multivariate analysis, all appropriate diagnostic tests were performed. Robust standard errors were reported to account for the potential heteroscedasticity of the error terms in all models (Carroll & Ruppert, 1982; Wilcox & Keselman, 2004). Citizen satisfaction with the police is the dependent variable, whereas working with community, community crime prevention, and city are the main independent variables. This study also adds a set of control variables that are reported to be associated with satisfaction with the police. Four models were developed: three

separate models were developed for each the hypothesis and a full model was developed to run all the variables simultaneously.

Dependent Variable

Citizen's Satisfaction with Police – The dependent variable was measured with a single survey item. The survey item asks the respondents the extent of satisfaction with the police. The respondents were asked on a scale of 1 to 5, "In general, how satisfied are you with the police who serves in your neighborhood?" (1 = very satisfied, 5 = very dissatisfied). It was reverse coded so that higher values indicate greater satisfaction with police.

This question has been commonly used in the satisfaction with police literature as a measure of citizen satisfaction with police (Karakus et al., 2011; Yuksel & Tepe, 2013).

Independent Variables

Working with Community – It was measured with a single survey item, asking respondents to indicate the extent of agreement on the following statement: "Police officers are working with residents to solve neighborhood problems". The response categories were a five-point Likert scale, ranging from 1 = strongly agree to 5 = strongly disagree. Responses to this survey item were reverse coded so that higher scores indicate greater agreement on the given statement.

Community Crime prevention – It was an index variable derived from two survey items. Respondents were asked to indicate the extent of agreement on the following statements: "(1) There are enough police officers working on crime prevention (such as school crime education programs and citizen and safety training opportunities), (2) There are enough police officers patrolling streets". Again, the response categories were a five-point Likert scale, ranging from 1 = strongly agree to 5 = strongly disagree. The items were reverse coded. Therefore, higher scores

indicate greater agreement on the given statements. An index was created to represent the respondent's perception of crime prevention by using the survey items. The community crime prevention index ranged from 2 to 10 (mean = 6.34, sd = 2.02). The Cronbach's alpha for the index was 0.74, suggesting that the community crime prevention index is reliable and has internal consistency.

City – It was a dichotomous variable measured by a single survey item. Respondents were asked, "In which city do you live?" with response categories of 1 = Frisco, 2 = Arlington, and 3 = None. Respondents who selected the "none" response category were removed and the item was re-coded as 1 = Arlington and 0 = Frisco.

Control Variables

Drawing upon the previous research of satisfaction with police, *effectiveness*, *gender, age, income, education, race,* and *marital status* were included as control variables into the analyses.

Effectiveness – Citizens' perception of police effectiveness has been studied as a predictor of satisfaction with police by a plethora of research (Weitzer & Tuch, 2005). Citizens evaluate the police mainly for their performance with respect to their services in public safety issues. The effectiveness variable was measured with a single survey item. The respondents were asked to indicate the extent of effectiveness of police services on a scale of 1 to 5 (1 = very effective, 5 = not effective at all). The question was reverse coded, suggesting that higher values indicate greater effectiveness of police services.

Gender – A substantial body of research has included gender as a determinant of satisfaction with police. Despite the conventional wisdom which suggests that males are more likely to commit crime than females and are expected to be less satisfied with the police, the

empirical research found that gender has no effect on satisfaction with police (Kusow et al., 1997). Yet, some research suggests that gender has a mediation effect on other variables such as prior victimization (Tewksbury & West, 2001). Gender was re-coded as 1 = male and 0 = female.

Age – Most research reported age as the strongest predictor of citizen satisfaction with police. The literature suggested that age is positively associated with the level of satisfaction with the police, as older individuals tend to be more satisfied with police than younger individuals. In examining the determinants of citizen satisfaction with police, Lai and Zhao (2010), for example, found that age is positively associated with showing favorable attitudes toward the police. Age was measured with a single survey item as a categorical variable ranging from 1 = under 18 years old to 8 = 75 years old and older.

Income – Prior studies reported mixed findings regarding the effect of income on satisfaction with police. One study, for example, found that citizens with higher income levels tend to be more satisfied with police than citizens with lower income levels (Frank, Smith, & Novak, 2005). By contrast, another study reported a negative relationship between income and satisfaction with police (Karakus et al., 2011). Considering the mixed findings of the previous research, income variable was added into the analyses as a control variable. It was operationalized as an ordinal variable with response options ranging from 1 = less than $10,000 a year to 5 = more than $80,000 a year.

Education – Similarly, educational attainment has been extensively studied by the satisfaction with police research. Most of the literature reported that education has no effect on citizen's satisfaction with police with a few exceptions (Cao, Frank, & Cullen, 1996; Ren et al., 2005). According to Smith (2005), as the citizen's level of educational attainment, it is expected

to see a reduction in their level of satisfaction with police. Similarly, in a sample of Turkish citizens, Karakus et al. (2011) found a negative relationship between education and level of satisfaction with the police, meaning that citizens with higher education tend to be less satisfied with the police. Education variable was measured as an ordinal variable with response options ranging from 1 = less than high school to 7 = doctorate.

Race – The majority of the previous research suggested that Blacks tend to show less favorable attitudes toward the police, compared to Whites (Reisig & Parks, 2000; Schafer et al., 2003; Skogan, 1978; Weitzer & Tuch, 2005). In examining the effects of residential location, Kusow et al. (1997), for example, argued that the residential location affects the perception of satisfaction with the police, regardless of race. According to them, blacks living in suburbs tend to be more satisfied with police than both blacks and whites living in cities. In a longitudinal analysis, Gau (2010), on the other hand, reported that race has no significant effect on the level of satisfaction with police. Race variable was operationalized as a categorical variable.

Marital Status – Relatively, a fewer number of studies have focused on the role of marital status on citizen's satisfaction with police. One study reported that married individuals tend to hold more favorable attitudes toward the police than unmarried individuals (Cao & Solomon Zhao, 2005). Marital status variable was measured with a single survey item. It was re-coded as 1 = married and 0 = not married.

Descriptive Statistics

Table 8 displays the descriptive statistics of the variables used in the analysis. Citizen satisfaction has a mean score of 3.63 and ranges from 1 to 5. More than 50% of the respondents indicated that they are satisfied with the police (see Table 9). The results also show that the respondents mostly agreed with the statement that police officers are working with the

community to solve neighborhood problems (mean = 3.40, range = 1 to 5). According to the

results, the respondents also reported a moderate level of crime prevention perception (mean =

6.44, range = 2 to 10). Nearly 68% of the respondents indicated that they are living in the city of

Arlington, TX.

Table 8: Descriptive Statistics

Variables	N	Mean or %	SD	Min	Max
Citizen Satisfaction	338	3.630	1.026	1	5
Working with Community	338	3.402	1.009	1	5
Community Crime Prevention	338	6.435	2.026	2	10
Arlington (1=Arlington, 0=Frisco)	338	67.8%	0.468	0	1
Effectiveness	338	3.382	1.036	1	5
Male	338	52.7%	0.500	0	1
Age	338	3.210	0.993	2	7
Income	338	3.284	1.090	1	5
Education	338	4.328	1.236	1	7
Black/African American (White)	338	15.7%	0.364	0	1
Hispanic/Latino (White)	338	14.5%	0.353	0	1
Asian (White)	338	9.47%	0.293	0	1
Other (White)	338	1.18%	0.108	0	1
Married (1=Married, 0=Non-married)	338	48.5%	0.501	0	1

Table 9: Descriptive Statistics of the Dependent Variable

	Frequency	Percentage
Very dissatisfied	17	5.03
Dissatisfied	30	8.88
Neither satisfied nor dissatisfied	71	21.01
Satisfied	163	48.22
Very satisfied	57	16.86

As the results show, respondents portray a range of demographic characteristics. Males

have a percentage of 53% of the entire sample which is slightly higher than females. The average

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age is between 25 and 34 years old. Blacks/African Americans have the second highest

percentage of the whole sample following Whites. Hispanics/Latinos have an almost equal

percentage with Blacks/African American participants of the sample. Lastly, a slight majority of

the respondents reported that they are non-married.

Table 10 presents the correlations between the variables used in the analysis. None of the

values between the independent variables is greater than the threshold of 0.70 to create a

multicollinearity problem. The highest correlation is between working with community and

effectiveness variables (0.48). It is followed by the correlation between income and education

(0.40). Yet, they do not create a bias for the analysis.

Table 10: Correlation Matrix of All Variables in Analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) Citizen Satisfaction	1.000													
(2) Working with Community	0.514	1.000												
(3) Community Crime Prevention	0.236	0.332	1.000											
(4) Arlington (1=Arlington, 0=Frisco)	-0.132	-0.089	-0.071	1.000										
(5) Effectiveness	0.756	0.483	0.246	-0.131	1.000									
(6) Male (1=Male, 0=Female)	0.115	0.055	0.040	-0.020	0.138	1.000								
(7) Age	0.079	0.069	-0.097	-0.071	0.066	0.040	1.000							
(8) Income	0.084	-0.007	-0.006	-0.117	0.140	0.128	0.274	1.000						
(9) Education	0.131	0.091	0.051	-0.052	0.157	0.099	0.169	0.400	1.000					
(10) Black/African American (White)	0.037	0.054	0.032	0.106	0.069	-0.064	0.048	-0.053	0.011	1.000				
(11) Hispanic/Latino (White)	-0.122	-0.106	0.003	0.014	-0.087	0.003	-0.138	-0.123	-0.130	-0.178	1.000			
(12) Asian (White)	-0.090	-0.079	-0.030	0.007	-0.129	0.084	-0.058	0.018	0.070	-0.139	-0.133	1.000		
(13) Other (White)	-0.067	-0.044	0.071	0.076	-0.120	-0.061	0.087	-0.003	-0.007	-0.047	-0.045	-0.035	1.000	
(14) Married (Non-married)	0.212	0.123	-0.024	-0.204	0.231	0.150	0.302	0.290	0.197	-0.060	0.004	-0.112	-0.052	1.000

Results

Table 11 displays the logit coefficients from the ordered logit regression models predicting citizen satisfaction with the police. Four models were developed. The first three models were developed to test each of the hypotheses. A fourth model of the full model incorporated all the variables into one model. As the results indicate, working with community variable was found to be significantly associated with citizen satisfaction in both the model 1 and model 4. Community crime prevention variable, on the other hand, was found to be a significant predictor of citizen satisfaction with police only in the model 2. Arlington variable was not found to be significant either in model 3 or model 4. Examining the results for each of the models provides better insight.

Table 11: Ordered Logit Regression Analysis Predicting Citizen Satisfaction with Police

	Model 1	Model 2	Model 3	Model 4
Working with Community	0.592***			0.552***
	(0.162)			(0.162)
Community Crime Prevention		0.127**		0.066
		(0.065)		(0.065)
Arlington (1=Arlington, 0=Frisco)			-0.255	-0.204
			(0.239)	(0.244)
Effectiveness	1.987***	2.137***	2.172***	1.976***
	(0.167)	(0.159)	(0.157)	(0.166)
Male (1=Male, 0=Female)	0.008	0.001	0.010	0.009
	(0.235)	(0.235)	(0.233)	(0.235)
Age	-0.016	0.037	0.011	-0.001
	(0.116)	(0.112)	(0.111)	(0.114)
Income	-0.097	-0.134	-0.141	-0.103
	(0.114)	(0.115)	(0.117)	(0.114)
Education	0.024	0.037	0.048	0.024
	(0.102)	(0.102)	(0.102)	(0.101)

(table continues)

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	Model 1	Model 2	Model 3	Model 4
Black/African American (White)	-0.386	-0.413	-0.352	-0.373
	(0.340)	(0.328)	(0.330)	(0.343)
Hispanic/Latino (White)	-0.464	-0.550	-0.511	-0.470
	(0.373)	(0.369)	(0.364)	(0.374)
Asian (White)	0.091	0.055	0.064	0.077
	(0.386)	(0.392)	(0.402)	(0.387)
Other (White)	0.637	0.394	0.697	0.572
	(0.846)	(1.059)	(0.985)	(0.881)
Married (1=Married, 0=Not married)	0.364	0.416	0.332	0.355
	(0.259)	(0.257)	(0.249)	(0.265)
/cut1	3.204***	2.880***	1.960***	3.338***
	(0.713)	(0.741)	(0.690)	(0.807)
/cut2	5.297***	4.807***	3.903***	5.415***
	(0.741)	(0.790)	(0.732)	(0.845)
/cut3	7.529***	6.945***	6.020***	7.649***
	(0.827)	(0.855)	(0.796)	(0.929)
/cut4	11.463***	10.816***	9.830***	11.624***
	(0.958)	(0.980)	(0.905)	(1.066)
Observations	338	338	338	338
Pseudo R^2	0.33	0.31	0.31	0.33

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Examining the results for model 1 suggests that as expected, working with community variable is significantly and positively associated with citizen satisfaction with the police. The results show that on average, a one unit increase in the citizen's perception of police involvement in the community would result in a 0.592 unit increase in the log-odds of being in higher citizen satisfaction with police category, given all the other variables in the model are held constant. In other words, each additional unit in working with community increases the odds of being in a higher category of citizen satisfaction with police by 0.592. Among the control variables, only effectiveness was shown to have a statistically significant and positive relationship with citizen

satisfaction with the police. This finding confirms the earlier works of citizen satisfaction with police research, as the perception of police effectiveness increases, citizen's level of satisfaction with the police.

Model 2 included community crime prevention variable along with a set of control variables. Community crime prevention was found to be significantly associated with citizen satisfaction with the police, although the effect is of smaller magnitude compared to the working with community variable. This finding implies that on average, a one unit increase in community crime prevention index would result in a 0.127 unit increase in the log-odds of being in a higher category of citizen satisfaction with the police, holding the other variables constant. Again, only effectiveness was found to be significantly and positively associated with citizen satisfaction with police among the control variables in this model.

Model 3 was developed to test the third hypothesis and included Arlington variable along with the control variables. According to the results, Arlington variable was not a significant predictor of citizen satisfaction with police. Hence, this finding suggests that there is no statistically significant difference between the citizens living in a city with a greater community policing implementation (Arlington) and the citizens living in a city with a limited community policing implementation (Frisco) with regard to their level of satisfaction with the police. Similar to the model 1 and model 2, effectiveness was the only variable found to be significantly associated with satisfaction with police among all the control variables.

Model 4 is the full model where all the variables were incorporated into the model. While working with community variable remained to be a significant predictor of the citizen satisfaction with police, community crime prevention was no longer found to be significant.

Arlington variable was not found to be significant again in the full model. Effectiveness also

remained to be significant in the model 4.

Figure 4 displays the predicted probability of satisfaction with police when working with

community varies from 1 to 5. The direction of the line shows that probabilities of being satisfied

and very satisfied with police increase from 0.41 to 0.75 and from 0.01 to 0.11 respectively,

when the police involvement increases from 1 to 5. By contrast, probabilities of being very

dissatisfied, dissatisfied, and neither satisfied nor dissatisfied with police decrease from 0.02 to

0.002, from 0.11 to 0.01, and from 0.45 to 0.11 respectively, as the police involvement increases.
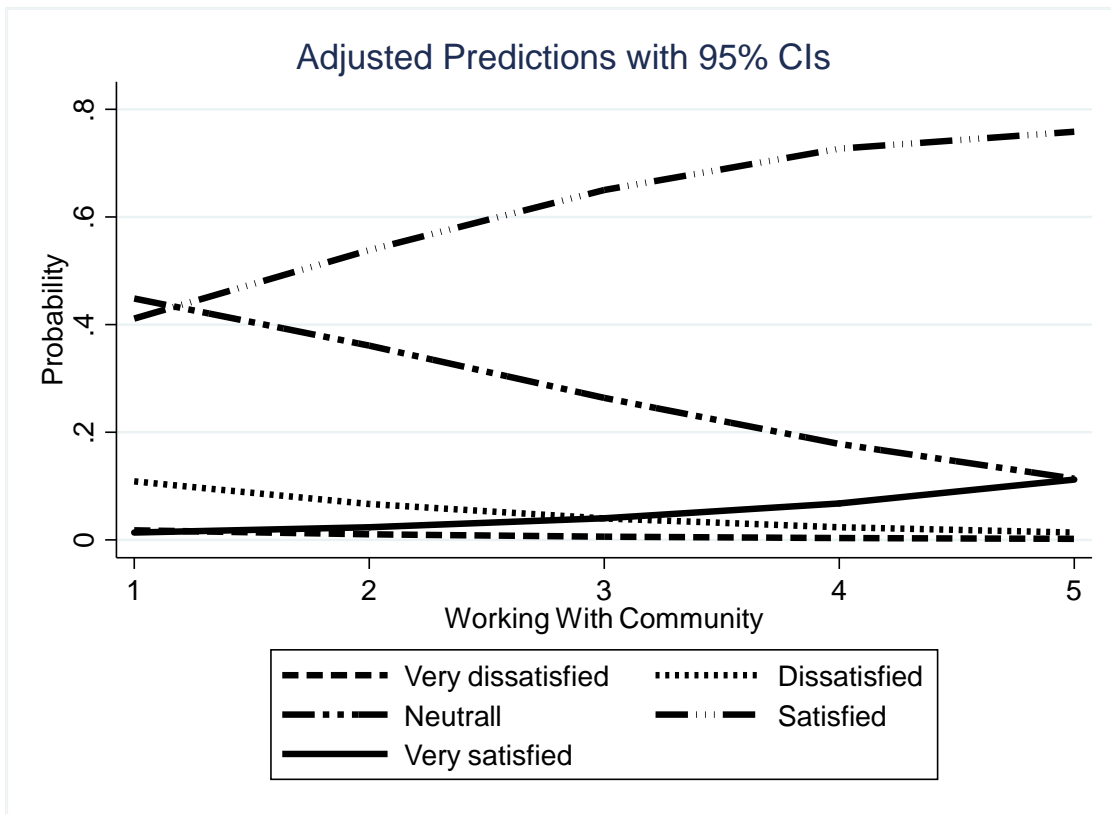
Figure 4: Predicted probability to be satisfied with police when working with community varies.

Discussion and Conclusion

The current study aimed to shed light upon the linkage between community policing and

citizen satisfaction with police using expectation disconfirmation theory. More specifically, this

study examined the extent to which community policing practices can increase citizen satisfaction with police. Two commonly used community policing practices, namely working with community and community crime prevention, were used as an indicator of community policing. Drawing upon the previous research of community policing, this research made an argument that community policing practices of working with community and community crime prevention increase citizen's satisfaction with the police. Because such practices allow law enforcement agencies to align their performance with the expectations of citizens. As the difference between citizens' expectations and perceived performance of police officers either get closed or decreased, it is expected to see an increase in citizen's satisfaction with the police. Two separate hypotheses were developed for each of the community policing practices.

This study also discussed that the extent of community policing implementation impacts citizen's satisfaction with police. In other words, the variation in the level of community policing implementation matters for citizen's satisfaction with police. A third hypothesis was developed to test this relationship.

While the first hypothesis was supported by the results across models, there was no evidence to support the second and third hypotheses. The first hypothesis suggests that citizen's perception of police involvement in the community is positively associated with satisfaction with police. The results validate this relationship. Working with community variable is a significant predictor of citizen satisfaction with police across models. In general, as the extent of citizen's perception of police involvement in the community increases, the likelihood of being in a higher category of satisfaction with the police increases as well.

The second hypothesis suggests that citizen's perception of community crime prevention is positively related to satisfaction with the police. There was no evidence to validate this

relationship according to the model 4. Community crime prevention was not found to be significant in the model 4 although it was significant in the model 2.

The third hypothesis was developed to see how the variation in community policing implementation affects the level of citizen satisfaction with police. More specifically, it was hypothesized that citizens living in a city with a greater community policing implementation tend to have a higher satisfaction with the police than the citizens living in a city with a limited community policing implementation. The current study does not find evidence to support this hypothesis. Arlington variable is not a significant predictor of citizen satisfaction with the police in the full model.

This study provides several implications for local government and law enforcement agencies. As the results show, police involvement in the community aspect of the community policing matters for citizen satisfaction. Law enforcement agencies may want to adopt more community policing practices to gain public support. Tyler (2003) argues that citizens who show favorable attitudes toward the police are less likely to commit a crime and more importantly tend to cooperate with the police. This is crucial for intelligence gathering in the fight against the terrorism threat. Therefore, this study informs policy-makers and law enforcement agencies to focus on community policing strategies to get better results for citizen satisfaction.

This study is not without its limitation. In this study, citizen satisfaction with police was measured with a summative index which was made up of two survey questions. However, one can argue that citizen satisfaction is a huge concept with multiple dimensions. Therefore, it would be better, if more questions for sub-dimensions of citizen satisfaction could be used to operationalize citizen satisfaction with police.

Another limitation is related to the sample. The sample for this study was drawn from Amazon Mechanical Turk users. A common problem regarding the use of this platform is that it excludes people without internet access. It is possible that people without internet access were absent from the sample.

Lastly, there is a need to include participants from more cities with different levels of community policing implementation. This research was conducted in the cities of Arlington and Frisco, Texas which represent the opposite ends of community policing implementation. However, it would be better to include more cities with variation in their level of community policing implementation to provide better insight into its effect on citizen satisfaction with police.

CHAPTER 5

CONCLUSION

This dissertation highlighted the importance of community policing philosophy as a framework for a comprehensive proactive strategy in response to the existing and ongoing terrorism threat. The U.S. homeland security has experienced a major transformation within the social and political context in reaction to the threat to national security since the September 11, 2001 terrorist attacks. Community policing which dominated the operations of the vast majority of police organizations for about three decades prior to the 9/11 terrorist attacks has lost momentum as the war on terror era started. Many law enforcement and security organizations have tempted to retreat from community policing and returned to a traditional model of policing which is characterized by a militarized or para-militarized, command and control, and hierarchical type of policing, in response to the threat to the national security.

During this period, terrorist groups have also experienced significant changes in a reaction to the centralized homeland security efforts at the federal and local levels. The groups adjusted their tactics, switching their focus away from sophisticated operational plans toward the use of individuals who require no extended support from organized groups. In addition, the groups adopted a more decentralized organizational structure where the operational authority is diffused. Such changes in their tactics can be attributable to the strategic game between the terrorist groups and targeted states. As the states develop plans to prevent terrorist attacks, the terrorist groups also adjust their plans and tactics for not being detected.

Considering the evolving nature of terrorism and the move to return to the traditional model of policing, this dissertation provided empirical evidence concerning the viability of community policing as a comprehensive proactive strategy in dealing with and countering the

threat of terrorism. The decentralized nature of terrorist groups necessitates a response effort that

is able to incorporate development and adjustment. Community policing which relies upon

mutual trust and respect between police and community is an ideal strategy in dealing with

terrorism. In this sense, this research empirically confirms the previous narrative studies of

community policing that propose community policing as an appropriate approach for terrorism

prevention.

Given the findings of this research, law enforcement agencies and policy-makers may

want to focus on various community policing programs, instead of moving away from the

community policing philosophy. Successful implementation of community policing programs

fosters a positive relationship between police and community in the co-production of public

safety. As citizens become involved in the production of public safety, they tend to participate

more in the process and expand their confidence in the police. They also tend to communicate

and cooperate more with the police as providing information and intelligence about public safety

issues. In a study regarding the spatial and temporal analysis of terrorist incidents, Smith,

Damphousse, and Roberts (2006) reported that individuals planning to commit a terrorist attack

are more likely to live close to the targeted location for further planning and preparation.

Community policing with its potential enables citizens living in the targeted location to report the

case to the police if they see any suspicious activity. It also helps the law enforcement agencies

to detect terrorist incidents through the information provided by the citizens. More importantly,

citizens involved in the process of public safety production feel safer and empowered as they

become more aware of their abilities to protect themselves and their communities from the terror

events. Hence, the findings of this research also confirm that community policing is an ideal

approach in dealing with the fear of terrorism among citizens, in building up resilience for future

terrorist attacks, and to increase citizens' satisfaction with police in order to enhance the quality

of life in the face of terrorism.

From this dissertation, several implications for policies concerning public safety are

evident. First, effective community policing provides a foundation to improve police-citizens

relationships through cooperation, collaboration, and partnerships that are reciprocal. Positive

police-citizens relationships not only improve the capacities of law enforcement agencies in

addressing terrorism but also strengthen the communities that are more vulnerable to terrorist

attacks. More importantly, the costs associated with community policing programs such as

personnel training and information sharing with the public is incomparably less than the costs

associated with another successful terrorist attack.

Second, law enforcement agencies should reinforce community policing in consideration

of the cultural traits of the diverse communities. Benavides (2014) maintains that cultural

awareness is critical in the delivery of services. A big percentage of the population in the U.S.,

especially densely populated cities, has cultural and racial diversity. Proper training of police

officers to increase their cultural competency is therefore of critical importance for the successful

delivery of community policing services. Lack of understanding about cultural differences in

diverse communities impedes community policing services being effective in addressing the

terrorism threat. In addition to the proper training of police officers, effective community

policing requires police departments to be representative of the communities they serve. Recent

events in predominantly minority communities call for improving police diversity.

Third, the willingness of all community stakeholders is imperative for effective

community policing. Unlike the traditional model of policing which relies on hierarchical

organizational structure, community policing philosophy is built upon a joint effort of political

leaders, police officers, and community leaders. The traditional model of policing is mostly

reactive and unable to foster a positive relationship with the community, whereas community

policing is predominantly proactive and encompasses the idea of co-production of public safety

by all community stakeholders. Yet, community policing has its own challenges such as resistant

police culture, politicians' reelection goal, and lack of awareness among citizens about the scope

of community policing. Mastrofski, Willis, and Kochel (2007) identify that resistant police

culture is a major challenge to adopt and implement community policing. Community policing

necessitates an organizational transformation, switching away from hierarchical and centralized

organizational structure toward flexible and decentralized organizational structure. Lack of will

for such a major transformation is an obstacle to adopt and implement community policing.

Politicians, on the other hand, might prefer aggressive policing models over community policing

as they mostly focus on the outcomes in crime reduction. Lastly, citizens lack understanding of

community policing. Examining the findings of fear of terrorism chapter also reveals that lack of

citizens' awareness about community policing programs appears to be the reason for why

community crime prevention influences citizens' fear of terrorism, while police involvement has

no effect on that. Citizens seeing the police officers working on crime prevention tend to have a

lower fear of terrorism. However, their perception of police involvement does not influence their

level of terrorism fear. This can be attributable to their lack of understanding of community

policing programs. In this respect, education of citizens about community policing to increase

their awareness is critical for effective community policing. Citizens' Police Academies that give

education to citizens about law enforcement and how police officers work within the community

can be effective to educate citizens on community policing. The success of community policing

hence depends upon a joint effort of all community stakeholders. With their willingness, community stakeholders can address the challenges of community policing together.

Results and Implications

Following the systematic review of the community policing phenomena, this dissertation empirically tested the impact of community policing on respectively citizen's fear of terrorism, resilience for future terrorist attacks, and satisfaction with the police in the face of new terrorism, using survey data collected in the cities of Arlington and Frisco, TX. To begin with, the second chapter focused on particularly the impact of community policing on citizen's perception of fear of terrorism. Routine Activity theory was utilized to understand the relationship between the variables of interest. Working with community and community crime prevention variables were used across the three chapters to represent the concept of community policing (Xu et al., 2005). In addition, Arlington variable was used to operationalize the variation in the level of community policing implementation. The findings indicated that community crime prevention is significantly and negatively associated with citizen's fear of terrorism, while working with community component of community policing is not a significant predictor of citizen's fear of terrorism. The findings also suggested that there is no statistically significant difference in the levels of fear of terrorism between the citizens living in a city with a greater community policing implementation and the citizens living in a city with a limited community policing implementation.

The third chapter empirically tested the impacts of two community policing variables on citizen's perceived resilience for a future terrorist attack using social capital theory. The findings here supported the hypotheses related to each of the community policing variables, while no support found for the third hypothesis of variation in the level of community policing implementation. Both the police involvement in the community and community crime prevention

were found to have a positive and significant effect on the citizen's perception of resilience for a future terrorist attack.

The fourth chapter lastly focused on the impacts of the community policing variables on citizen's satisfaction with the police. Working with community variable remained to be a significant predictor of citizen's satisfaction with the police in this chapter. However, community crime prevention was not found to be significant in this chapter. Again, there was no support for the third hypothesis here. The summary of the hypotheses is presented in table 10.

Table 12: Summary of Hypotheses

Main Variables	Chapters		
	Fear of Terrorism	Resilience	Citizen Satisfaction with Police
Working with community	Not supported	Supported	Supported
Community crime prevention	Supported	Supported	Not supported
Variation in community policing	Not supported	Not supported	Not supported

The results, in general, provide enough evidence to conclude that community policing is beneficial in dealing with the various effects of terrorism. Although working with community component of community policing was not found to be significantly associated with citizen's fear of terrorism, community crime prevention influences fear of terrorism among citizens. Such a lack of support for the first hypothesis can be attributable to the citizens' lack of awareness about the community policing programs. Another explanation can be that citizens might value seeing police officers patrolling on the streets more in dealing with the fear of terrorism than the collaboration efforts of law enforcement agencies in addressing the terrorism threat. This finding is compatible with the previous research on police visibility in reducing the fear of crime and perceived risk of victimization (Salmi, Grönroos, & Keskinen, 2004; Winkel, 1986). Similarly,

the results also indicate that community policing is an appropriate strategy to improve citizen's resilience for a future terrorist attack and to increase their satisfaction with the police in order to enhance their quality of life.

Contributions

This research contributes to the literature by examining the concept of community policing through a public administration perspective. Most of the previous research on community policing has adopted a criminal justice perspective. There are also a few studies with a political science perspective. However, there is a lack of research on the concept of community policing that adopts a public administration perspective despite the similarity of community policing with the main themes of public administration scholarship such as collaboration, partnership, leadership, and managerial performance. In this sense, this research is important as it adds a new perspective in examining a long-studied concept of community policing.

More importantly, this research contributes to the literature by empirically testing the impact of community policing on the public's perception of the fear of terrorism, resilience for a future terrorist attack, and satisfaction with police. The majority of the earlier works on community policing are narrative. There are relatively fewer studies that focus on the relationship between community policing and crime. However, this research seeks the viability of community policing as a comprehensive proactive strategy in dealing with the various effects of terrorism on individuals. This research is also unique in a way that it tests the effect of variation in community policing implementation on citizen's fear of terrorism, resilience for a future terrorist attack, and satisfaction with the police for the first time.

Limitations and Implications for Future Studies

As with all research, this dissertation also has several limitations. One of the limitations is about the data collection. The data for this study were collected through the Amazon Mechanical Turk (MTurk) platform. Recently, questions have raised regarding the reliability of online data collection platforms such as the MTurk, although the research has validated the use of Mturk to recruit participants (Buhrmester et al., 2011). According to Wessling et al. (2017), respondents in paid surveys falsely claim identities or characteristics to ensure participation in the survey. Although the research suggests that the respondents of the Mturk platform are comparable to the respondents of traditional surveys, such "character misrepresentation" should be recognized in research as a limitation. Replication of this study with different samples would be needed to validate the findings provided here.

Another limitation is again about the use of the MTurk platform for data collection. The sample for this study was drawn from the MTurk users. A common problem with regard to the use of MTurk platform is that it excludes individuals without internet access. That is, only people with internet access are able to participate in online surveys. It is possible that people without internet access were absent from the sample of this study. To check any difference between the sample and population, I compared the demographic characteristics of the sample to the population obtained through the Census Bureau. After a close examination, it is safe to say that the sample of this study shows very similar characteristics to the population. Therefore, it does not yield a problem for the generalizability of the findings presented here.

A third limitation is about the sample selection. The sample of this study is only limited to the cities of Arlington and Frisco, Texas. These two Texas cities were purposively selected to represent the opposite ends of community policing implementation. However, it would be better

to include participants from more cities with variation in their level of community policing implementation in order to provide a better insight into its effect on the public's perceptions of the given subject matters.

Lastly, this dissertation uses cross-sectional data which contain information only one-point in time. However, the use of cross-sectional data might yield issues related to the generalizability of the findings in time. Longitudinal data might be more appropriate for the concepts of fear of terrorism, resilience, satisfaction with the police since they might be elevated over time. Recent terror incidents, for example, could be a bias for citizens to have a higher fear of terrorism or to feel less resilient or to show less favorable attitudes toward the police. Future studies, therefore, would replicate this study to validate the findings presented here with longitudinal data.

APPENDIX A

DATA COLLECTION

The data for this study were collected through an online survey conducted in the cities of

Arlington and Frisco, Texas between May 20 and June 26, 2019. The sample of the survey

includes citizens residing in these two cities of Texas. The survey distributed to the citizens

through the Amazon Mechanical Turk (MTurk) platform which is a crowdsourcing website to

perform on-demand tasks (Paolacci et al., 2010). The use of MTurk has been growing rapidly in

social sciences especially the ones that require behavioral analysis (Crump et al., 2013; Stritch et

al., 2017; Zhu et al., 2018). Research has validated the use of Mturk to recruit respondents and

suggests that respondents of MTurk platform are comparable to the respondents of traditional

surveys (Buhrmester et al., 2011). In the context of public administration, MTurk is also found to

be beneficial for researchers examining social phenomena among a diverse population

(Hjortskov, 2017; Stritch et al., 2017). Mturk ensures greater generalizability through recruiting

respondents from a wide range of ages, socio-economic backgrounds, and ethnicities.

An online questionnaire was developed through Qualtrics and posted on Mturk to recruit

respondents. A screening question was created at the beginning of the survey to limit

participation to those living in the cities of Arlington and Frisco, TX. These cities were selected

through the help of the Law Enforcement Management and Administrative Statistics (LEMAS)

survey. The LEMAS survey has been periodically gathered from the state and local law

enforcement agencies since 1987 and includes questions ranging from agencies responsibilities,

demographic characteristics, and training programs. A scale of community policing

implementation was created out of 9 questions on the LEMAS survey to capture the variation in

the level of community policing implementation among the cities across the United States. The

questions included on the scale were consist of statements about whether the law enforcement

agencies' mission statement has a component of community policing, whether the agencies send

their personnel to training on community policing issues, whether the agencies engage in problem-solving, collaboration, and partnership projects, and whether the agencies have a website to share crime-related information to public. Arlington was among the cities that have highest scores on this community policing scale, whereas Frisco was among the cities that do poor on this scale. The cities of Arlington and Frisco have similar socio-demographic characteristics and located in the same region which make two cities comparable.

If the respondents were not living in either Arlington or Frisco, the survey was terminated, and those respondents were excluded from participation. Respondents who completed and submitted the survey on MTurk received monetary compensation. Out of 1178 attempts to take the survey, 348 respondents were able to participate in the survey after satisfying the screening question. However, 10 respondents were removed because they were not able to complete all the questions in the survey. A sample size of 338 were obtained for the analysis. The comparison of demographic characteristics of the sample and population was presented in table 1. The sample shows similar demographic characteristics with the population.

APPENDIX B

COMPARISON OF DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE AND

POPULATION

Demographic Variables		Sample		Census Bureau - 2017	
		Arlington	Frisco	Arlington	Frisco
Gender	Male	52%	54%	49%	49.1%
	Female	48%	46%	51%	50.8%
Race	White	55.5%	66.9%	40.1%	60.2%
	Black/African American	18.3%	10.1%	21.9%	7.4%
	Hispanic/Latino	14.8%	13.8%	28.9.%	12.4%
	Asian	9.6%	9.2%	6.9%	16.8%
	Other	1.7%	-	1.5%	3.2%
Income*	Less than $10,000	10%	5.5%	5.6%	2.3%
	$10,000 - $49,999	50.2%	46.8%	38.8%	15.5%
	More than $50,000	39.7%	47.6%	55.6%	82.4%
Education	Less than high school	0.5%	-	15.2%	4.2%
	High school graduate	8.3%	8.3%	23.2%	10.2%
	Some college	24%	18.3%	24.5%	18.7%
	2-years degree	12.2%	10.1%	7.6%	6.6%
	4-years degree	40.6%	52.3%	19.9%	37.7%
	Graduate degree	14.4%	11%	9.6%	22.6%
Age	Under 18	-	-	26.3%	31.6%
	18 – 24	24%	17.4%	10.9%	5.7%
	25 – 34	47.6%	51.4%	15.3%	10.4%
	35 – 44	19.2	21.1%	13.6%	20.3%
	45 – 54	7%	5.5%	13.2%	16.4%
	55 – 64	1.7%	1.8%	10.7%	8%
	65 – 74	0.4%	2.8%	6.4%	5%
	75 or older	-	-	3.6%	2.6%
Marital Status	Married	41.5%	63.3%	46.3%	66.1%
	Widowed	0.4%	1.8%	4.2%	2.8%
	Divorced	5.7%	2.8%	11%	8.2%
	Separated	3.5%	0.9%	2.3%	1.1%
	Single/never married	48.9%	31.2%	36.1%	21.8%

*Due to the differences in the brackets of income categorical variable between the survey and Census Bureau, some of brackets were interpolated.

REFERENCES

Ahern, J., Galea, S., Resnick, H., Kilpatrick, D., Bucuvalas, M., Gold, J., & Vlahov, D. (2002). Television Images and Psychological Symptoms after the September 11 Terrorist Attacks. *Psychiatry: Interpersonal and Biological Processes*, *65*(4), 289–300.

Aldrich, D. P. (2012a). *Building resilience: Social capital in post-disaster recovery*. Chicago, IL: University of Chicago Press.

Aldrich, D. P. (2012b). Social, not physical, infrastructure: The critical role of civil society after the 1923 Tokyo earthquake. *Disasters*, *36*(3), 398–419.

Aldrich, D. P., & Meyer, M. A. (2015). Social Capital and Community Resilience. *American Behavioral Scientist*, *59*(2), 254–269.

Anderson, E. W., & Sullivan, M. W. (1993). The antecedents and consequences of customer satisfaction for firms. *Marketing Science*, *12*(2), 125–143.

Bakker, E., & de Graaf, B. (2011). Preventing Lone Wolf Terrorism: Some CT Approaches Addressed. *Perspectives on Terrorism*, *5*(6), 43-50

Benavides, A. D. (2014, December 17). Cultural Competency in Hispanic Communities. In K. Norman-Major and S. Gooden (Ed.). *Cultural competency for public administrators*, (pp. 108-128), Routledge.

Benavides, A. D., Alhumaid, S. M., & Quainoo, E. D. (2011). Counterterrorism and perspectives on cultural competency and representation. *Counter Terrorism in Diverse Communities*, *90*, 197.

Besser, A., Neria, Y., & Haynes, M. (2009). Adult attachment, perceived stress, and PTSD among civilians exposed to ongoing terrorist attacks in Southern Israel. *Personality and Individual Differences*, *47*(8), 851–857.

Bleich, A., Gelkopf, M., & Solomon, Z. (2003). Exposure to terrorism, stress-related mental health symptoms, and coping behaviors among a nationally representative sample in Israel. *Jama*, *290*(5), 612–620.

Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2007). What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. *Journal of Consulting and Clinical Psychology*, *75*(5), 671.

Bonanno, G. A., Rennicke, C., & Dekel, S. (2005). Self-enhancement among high-exposure survivors of the September 11th terrorist attack: Resilience or social maladjustment? *Journal of Personality and Social Psychology*, *88*(6), 984.

Boscarino, J. A., Figley, C. R., & Adams, R. E. (2003). Fear of Terrorism in New York After the September 11 Terrorist Attacks: Implications for Emergency Mental Health and Preparedness. *International Journal of Emergency Mental Health*, *5*(4), 199–209.

Bourdieu, P. (1986). *The forms of capital*. In J. Richardson (Ed.) Handbook of Theory and Research for the Sociology of Education, (pp. 241-248), New York, Greenwood.

Bourque, L. B. (2007). *National survey of disaster experiences and preparedness (NSDEP), 2007–2008*. Ann Arbor, MI: Institute for Social Research.

Brown, K., & Coulter, P. B. (1983). Subjective and objective measures of police service delivery. *Public Administration Review*, *43*(1), 50–58.

Buckland, J., & Rahman, M. (1999). Community-based disaster management during the 1997 Red River Flood in Canada. *Disasters*, *23*(2), 174–191.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality data? *Perspectives on Psychological Science*, *6*(1), 3–5.

Burnham, J. J. (2007). Children's Fears: A Pre-9/11 and Post-9/11 Comparison Using the American Fear Survey Schedule for Children. *Journal of Counseling and Development: JCD; Alexandria*, *85*(4), 461–466.

Butler, A. S., Panzer, A. M., & Goldfrank, L. R. (2003). *Preparing for the psychological consequences of terrorism: A public health strategy*. Natl Academy Press.

Butler, L., Morland, L., & Leskin, G. (2007). Psychological resilience in the face of terrorism. *Psychology of Terrorism*, 400–417.

Campbell, A., & Schuman, H. (1972). A comparison of black and white attitudes and experiences in the city. *The End of Innocence: A Suburban Reader*, 97–110.

Cao, L., Frank, J., & Cullen, F. T. (1996). Race, community context and confidence in the police. *American Journal of Police*, *15*(1), 3–22.

Cao, L., & Solomon Zhao, J. (2005). Confidence in the police in Latin America. *Journal of Criminal Justice*, *33*(5), 403–412.

Carroll, R. J., & Ruppert, D. (1982). Robust estimation in heteroscedastic linear models. *The Annals of Statistics*, 429–441.

Carter, D. L. (1985). Hispanic perception of police performance: An empirical assessment. *Journal of Criminal Justice*, *13*(6), 487–500.

Chapman, R., Baker, S., Bezdikian, V., Cammarata, P., Cohen, D., Leach, N., & Varano, R. (2002). Local law enforcement responds to terrorism. *COPS Innovations. US Department of Justice. Office of Community Oriented Policing Services*, *5*.

Cheng, Y. (2018). Nonprofit Spending and Government Provision of Public Services: Testing Theories of Government–Nonprofit Relationships. *Journal of Public Administration Research and Theory*, *29*(2), 238–254.

Christensen, D. A., & Aars, J. (2019). Does democracy decrease fear of terrorism? *Terrorism and Political Violence*, *31*(3), 615–631.

Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review*, 588–608.

Cohen, L. E., & Felson, M. (2016). Social change and crime rate trends: A routine activity approach (1979). In *Classics in environmental criminology* (pp. 203–232). CRC Press.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, *94*, 95-120.

Crump, M. J., McDonnell, J. V., & Gureckis, T. M. (2013). Evaluating Amazon's Mechanical Turk as a tool for experimental behavioral research. *PloS One*, *8*(3), e57410.

Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change*, *18*(4), 598–606.

DeHoog, R. H., Lowery, D., & Lyons, W. E. (1990). Citizen satisfaction with local governance: A test of individual, jurisdictional, and city-specific explanations. *The Journal of Politics*, *52*(3), 807–837.

DeLisi, L. E. (2003). A Survey of New Yorkers After the Sept. 11, 2001, Terrorist Attacks. *American Journal of Psychiatry*, *160*(4), 780–783.

DiMaggio, C., & Galea, S. (2006). The behavioral consequences of terrorism: A meta-analysis. *Academic Emergency Medicine*, *13*(5), 559–566.

Docobo, J. M. (2005). Community-policing as the primary prevention strategy for homeland security at the local law enforcement level. *Homeland Security Affairs* 1(1), 1-12.

Dowler, K., & Sparks, R. (2008). Victimization, contact with police, and neighborhood conditions: Reconsidering African American and Hispanic attitudes toward the police. *Police Practice and Research: An International Journal*, *9*(5), 395–415.

Dunn, K. M., Atie, R., Kennedy, M., Ali, J. A., O'Reilly, J., & Rogerson, L. (2016). Can you use community policing for counter terrorism? Evidence from NSW, Australia. *Police Practice and Research*, *17*(3), 196–211.

Dynes, R. R. (2005). *Community social capital as the primary basis for resilience*. Newark: University of Delaware, Disaster Resource Center.

Eachus, P. (2014). Community resilience: Is it greater than the sum of the parts of individual resilience? *Procedia Economics and Finance*, *18*, 345–351.

Enders, W., Sandler, T., & Parise, G. F. (1992). An econometric analysis of the impact of terrorism on tourism. *Kyklos*, *45*(4), 531–554.

Evans, W. N., & Owens, E. G. (2007). COPS and Crime. *Journal of Public Economics*, *91*(1–2), 181–201.

Fainstein, S. S., & Fainstein, N. I. (1983). Economic change, national policy, and the system of cities. In N. Fainstein and S. Fainstein (eds.), *Restructuring the city: the political econonomy of urban redevelopment*, Longman, New York.

Federal Bureau of Investigation. (2019). *Terrorism*. Retrieved from https://www.fbi.gov/investigate/terrorism

Federal Emergency Management Agency (2011). *A whole community approach to emergency management: Principles, themes, and pathways for action*. US Department of Homeland Security, Federal Emergency Management Agency.

Fisher-Stewart, G. (2007). *Community policing explained: A guide for local governments*. Washington, DC: US Department of Justice, Office of Community Oriented Policing Services.

Fitzgerald, M. R., & Durant, R. F. (1980). Citizen evaluations and urban management: Service delivery in an era of protest. *Public Administration Review*, 585–594.

Frank, J., Brandl, S. G., Cullen, F. T., & Stichman, A. (1996). Reassessing the impact of race on citizens' attitudes toward the police: A research note. *Justice Quarterly*, *13*(2), 321–334.

Frank, J., Smith, B. W., & Novak, K. J. (2005). Exploring the basis of citizens' attitudes toward the police. *Police Quarterly*, *8*(2), 206–228.

Freilich, J. D., & LaFree, G. (2015). Criminology Theory and Terrorism: Introduction to the Special Issue. *Terrorism and Political Violence*, *27*(1), 1–8.

Friedmann, R. R., & Cannon, W. J. (2007). Homeland security and community policing: Competing or complementing public safety policies. *Journal of Homeland Security and Emergency Management*, *4*(4).

Galea, S., Ahern, J., Resnick, H., Kilpatrick, D., Bucuvalas, M., Gold, J., & Vlahov, D. (2002). Psychological sequelae of the September 11 terrorist attacks in New York City. *New England Journal of Medicine*, *346*(13), 982–987.

Gallagher, E., Kim, J., Markovic, J., & Spence, D. (2016). *The State of Policing in the United States, volume 1*. Washington, DC: Office of Community Oriented Policing Services.

Gallup. (2015). *Terrorism in the United States*. Retrieved from https://news.gallup.com/poll/4909/terrorism-united-states.aspx

Gau, J. M. (2010). A longitudinal analysis of citizens' attitudes about police. *Policing: An International Journal of Police Strategies & Management*, *33*(2), 236–252.

Gianakis, G. A., & Davis III, G. J. (1998). Reinventing or repackaging public services? The case of community-oriented policing. *Public Administration Review*, 485–498.

Gill, C., Weisburd, D., Telep, C. W., Vitter, Z., & Bennett, T. (2014). Community-oriented policing to reduce crime, disorder and fear and increase satisfaction and legitimacy among citizens: A systematic review. *Journal of Experimental Criminology*, *10*(4), 399–428.

Greene, J. R. (2004). Community policing and organization change. *Community Policing: Can It Work*, 30–53.

Hamm, M. S. (2007). *Terrorism as crime: From Oklahoma City to Al-Qaeda and beyond*. NYU Press.

Hanifan, L. J. (1916). The rural school community center. *The Annals of the American Academy of Political and Social Science*, *67*(1), 130–138.

Hausman, A. J., Hanlon, A., & Seals, B. (2007). Social capital as a mediating factor in emergency preparedness and concerns about terrorism. *Journal of Community Psychology*, *35*(8), 1073–1083.

Hawdon, J., & Ryan, J. (2003). Police-resident interactions and satisfaction with police: An empirical test of community policing assertions. *Criminal Justice Policy Review*, *14*(1), 55–74.

Hjortskov, M. (2017). Priming and context effects in citizen satisfaction surveys. *Public Administration*, *95*(4), 912–926.

Hobfoll, S. E., Canetti-Nisim, D., Johnson, R. J., Palmieri, P. A., Varley, J. D., & Galea, S. (2008). The association of exposure, risk, and resiliency factors with PTSD among Jews and Arabs exposed to repeated acts of terrorism in Israel. *Journal of Traumatic Stress*, *21*(1), 9–21.

Holling, C. S. (1973). Resilience and Stability of Ecological Systems. *Annual Review of Ecology and Systematics*, *4*(1), 1–23.

House Report 103-322. (1994). *Violent Crime Control and Law Enforcement Act of 1994*. Retrieved from https://www.congress.gov/bill/103rd-congress/house-bill/03355

Huddy, L., Feldman, S., Capelos, T., & Provost, C. (2002). The consequences of terrorism: Disentangling the effects of personal and national threat. *Political Psychology*, *23*(3), 485–509.

Huebner, B. M., Schafer, J. A., & Bynum, T. S. (2004). African American and White perceptions of police services: Within-and between-group variation. *Journal of Criminal Justice*, *32*(2), 123–135.

Hurlbert, J. S., Haines, V. A., & Beggs, J. J. (2000). Core networks and tie activation: What kinds of routine networks allocate resources in nonroutine situations? *American Sociological Review*, 598–618.

Jones, B. (1982). Contracting Limits: An End to City Government? *Urban Affairs Quarterly*, *17*, 379–88.

Juergensmeyer, M. (2003). Terror in the mind of God: The global rise of religious violence. *Violence & Abuse Abstracts*, *9*, 3–84. Sage Publications.

Juergensmeyer, M. (2017). *Terror in the mind of God: The global rise of religious violence* (Vol. 13). Univ of California Press.

Karakus, O., McGarrell, E. F., & Basibuyuk, O. (2011). Public satisfaction with law enforcement in Turkey. *Policing: An International Journal of Police Strategies & Management*, *34*(2), 304–325.

Kimhi, S., & Shamai, M. (2004). Community resilience and the impact of stress: Adult response to Israel's withdrawal from Lebanon. *Journal of Community Psychology*, *32*(4), 439–451.

Kushner, H. W. (2003). *Encyclopedia of terrorism*. Thousand Oaks, CA: Sage.

Kusow, A. M., Wilson, L. C., & Martin, D. E. (1997). Determinants of Citizen Satisfaction with the Police—The Effects of Residential Location. *Policing: An International Journal of Police Strategies & Management*, *20*, 655–664.

Lai, Y.-L., & Zhao, J. S. (2010). The impact of race/ethnicity, neighborhood context, and police/citizen interaction on residents' attitudes toward the police. *Journal of Criminal Justice*, *38*(4), 685–692.

Lieberman, C. A. (2009). *Community policing & counter terrorism: Community policing philosophy as a tool for local law enforcement to counter terrorist activities*. City University of New York.

Liederbach, J., Fritsch, E. J., Carter, D. L., & Bannister, A. (2008). Exploring the limits of collaboration in community policing: A direct comparison of police and citizen views. *Policing: An International Journal of Police Strategies & Management*, *31*(2), 271–291.

Lin, N. (1999). Building a network theory of social capital. In *Social capital* (pp. 3–28). Routledge.

Lyman, M. D., & Potter, G. W. (1997). *Organized crime*. Upper Saddle River, NJ: Prentice Hall.

Lyons, W. (2002). Partnerships, information and public safety: Community policing in a time of terror. *Policing: An International Journal of Police Strategies & Management*, *25*(3), 530–542.

MacDonald, J. M. (2002). The effectiveness of community policing in reducing urban violence. *Crime & Delinquency*, *48*(4), 592–618.

Marsden, S. V., & Schmid, A. P. (2011). Typologies of terrorism and political violence. In A.P. Schmid (Ed.), *The Routledge Handbook of Terrorism Research* (pp. 158-200), New York: Routledge.

Martin, G. (2014). *Types of Terrorism. Exchanging Terrorism Oxygen for Media Airwaves: The Age of Terroredia*, (pp. 81–95), Hershey, PA: IGI Global.

Mastrofski, S. D., Parks, R. B., Worden, R. E., & Albert Jr, J. (2002). *Project on Policing Neighborhoods in Indianapolis, Indiana, and St. Petersburg, Florida, 1996-1997*. Inter-university Consortium for Political and Social Research.

Mastrofski, S. D., Willis, J. J., & Kochel, T. R. (2007). The challenges of implementing community policing in the United States. *Policing: A Journal of Policy and Practice*, *1*(2), 223–234.

May, D. C., Herbert, J., Cline, K., & Nellis, A. (2011). Predictors of Fear and Risk of Terrorism in a Rural State. *International Journal of Rural Criminology*, *1*(1), 1–22.

Meyer, M. A. (2013). *Social capital and collective efficacy for disaster resilience: Connecting individuals with communities and vulnerability with resilience in hurricane-prone communities in Florida*. Colorado State University.

Miller, L. (2002). Psychological interventions for terroristic trauma: Symptoms, syndromes, and treatment strategies. *Psychotherapy: Theory, Research, Practice, Training*, *39*(4), 283.

Milward, H. B., & Provan, K. G. (2000). Governing the hollow state. *Journal of Public Administration Research and Theory*, *10*(2), 359–380.

Misis, M. L., Bush, M. D., & Hendrix, N. (2017). An examination of college students' fears about terrorism and the likelihood of a terrorist attack. *Behavioral Sciences of Terrorism and Political Aggression*, *9*(2), 125–138.

Moore, M. H. (1992). Problem-solving and community policing. *Crime and Justice*, *15*, 99–158.

Morgeson, F. V. (2012). Expectations, disconfirmation, and citizen satisfaction with the US federal government: Testing and expanding the model. *Journal of Public Administration Research and Theory*, *23*(2), 289–305.

Murray, J. (2005). Policing Terrorism: A Threat to Community Policing or Just a Shift in Priorities? *Police Practice & Research*, *6*(4), 347–361.

Nellis, A. M. (2009). Gender Differences in Fear of Terrorism. *Journal of Contemporary Criminal Justice*, *25*(3), 322–340.

Nellis, A. M., & Savage, J. (2012). Does Watching the News Affect Fear of Terrorism? The Importance of Media Exposure on Terrorism Fear. *Crime & Delinquency*, *58*(5), 748–768.

Nicholson-Crotty, S., & O'Toole Jr, L. J. (2004). Public management and organizational performance: The case of law enforcement agencies. *Journal of Public Administration Research and Theory*, *14*(1), 1–18.

Norris, F. H., Friedman, M. J., & Watson, P. J. (2002). 60,000 disaster victims speak: Part II. Summary and implications of the disaster mental health research. *Psychiatry: Interpersonal and Biological Processes*, *65*(3), 240–260.

Norris, F. H., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60,000 Disaster Victims Speak: Part I. An Empirical Review of the Empirical Literature, 1981–2001. *Psychiatry: Interpersonal and Biological Processes*, *65*(3), 207–239.

Norris, F. H., & Stevens, S. P. (2007). Community Resilience and the Principles of Mass Trauma Intervention. *Psychiatry: Interpersonal and Biological Processes*, *70*(4), 320–328.

Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness. *American Journal of Community Psychology*, *41*(1–2), 127–150.

North, C. S., & Pfefferbaum, B. (2002). Research on the mental health effects of terrorism. *Journal of the American Medical Association*, *288*(5), 633–636.

Oliver, R. L. (1977). Effect of expectation and disconfirmation on postexposure product evaluations: An alternative interpretation. *Journal of Applied Psychology*, *62*(4), 480.

Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, *17*(4), 460–469.

Oliver, W. M. (2004). The homeland security juggernaut: The end of the community policing era? *Crime and Justice International*, (79), 4–10.

Olson, M. (2008). Collective Action. In S. N. Durlauf & L. E. Blume (Eds.), *The New Palgrave Dictionary of Economics: Volume 1 – 8* (pp. 876–880).

Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on amazon mechanical turk. *Judgment and Decision Making*, *5*(5), 411–419.

Parks, R. B. (1984). Linking objective and subjective measures of performance. *Public Administration Review*, *44*(2), 118–127.

Patel, S. S., Rogers, M. B., Amlôt, R., & Rubin, G. J. (2017). What do we mean by "community resilience"? A systematic literature review of how it is defined in the literature. *PLoS Currents Disasters, 1*.

Pat-Horenczyk, R. (2005). Post-traumatic distress in Israeli adolescents exposed to ongoing terrorism: Selected findings from school-based screenings in Jerusalem and nearby settlements. *Journal of Aggression, Maltreatment & Trauma*, *9*(3–4), 335–347.

Paton, D., Millar, M., & Johnston, D. (2001). Community resilience to volcanic hazard consequences. *Natural Hazards*, *24*(2), 157–169.

Pelfrey Jr, W. V. (2005). Parallels between community oriented policing and the war on terrorism: Lessons learned. *Criminal Justice Studies*, *18*(4), 335–346.

Peterson, P. E. (1981). *City limits*. Chicago: University of Chicago Press.

Pfefferbaum, B. J., Reissman, D. B., Pfefferbaum, R. L., Klomp, R. W., & Gurwitch, R. H. (2008). Building resilience to mass trauma events. In *Handbook of injury and violence prevention* (pp. 347–358). Springer.

Pfefferbaum, B., Tivis, R. D., & Pynoos, R. S. (1999). Clinical Needs Assessment of Middle and High School Students Following the 1995 Oklahoma City Bombing. *Am J Psychiatry*, 6.

Poister, T. H., & Thomas, J. C. (2011). The effect of expectations and expectancy confirmation/disconfirmation on motorists' satisfaction with state highways. *Journal of Public Administration Research and Theory*, *21*(4), 601–617.

Putnam, R. D. (1995). Bowling alone: America's declining social capital. In *Culture and politics* (pp. 223–234). Springer.

Reisig, M. D., & Parks, R. B. (2000). Experience, quality of life, and neighborhood context: A hierarchical analysis of satisfaction with police. *Justice Quarterly*, *17*(3), 607–630.

Reissman, D. B., Klomp, R. W., Kent, A. T., & Pfefferbaum, B. (2004). Exploring Psychological Resilience in the Face Of Terrorism. *Psychiatric Annals; Thorofare*, *34*(8), 626–632.

Reissman, D. B., Spencer, S., Tanielian, T. L., & Stein, B. D. (2005). Integrating behavioral aspects into community preparedness and response systems. *Journal of Aggression, Maltreatment & Trauma*, *10*(3–4), 707–720.

Ren, L., Cao, L., Lovrich, N., & Gaffney, M. (2005). Linking confidence in the police with the performance of the police: Community policing can make a difference. *Journal of Criminal Justice*, *33*(1), 55–66.

Riley, K. J., Treverton, G. F., Wilson, J. M., & Davis, L. M. (2005). *State and local intelligence in the war on terrorism*. Rand Corporation.

Rose, A. (2004). Defining and measuring economic resilience to disasters. *Disaster Prevention and Management: An International Journal*, *13*(4), 307–314.

Rose, A. (2007). Economic resilience to natural and man-made disasters: Multidisciplinary origins and contextual dimensions. *Environmental Hazards*, *7*(4), 383–398.

Rubin, A. M., Haridakis, P. M., Hullman, G. A., Sun, S., Chikombero, P. M., & Pornsakulvanich, V. (2003). Television Exposure Not Predictive of Terrorism Fear. *Newspaper Research Journal*, *24*(1), 128–145.

Rutter, M. (1993). Resilience: Some conceptual considerations. *Journal of Adolescent Health*, *14*(8), 626–631.

Saad, L. (2004). *Three Years After 9/11, Most Americans Carrying on Normally: Fear of terrorism still higher than pre-9/11*. Washington D.C.: Gallup. Retrieved from https://news.gallup.com/poll/12991/three-years-after-911-most-americans-carrying-normally.aspx

Salmi, S., Grönroos, M., & Keskinen, E. (2004). The role of police visibility in fear of crime in Finland. *Policing: An International Journal of Police Strategies & Management*, *27*(4), 573–591.

Salvatore, C., & Rubin, G. (2015). A Socio-Demographic Analysis of Responses to Terrorism. *Journal of Homeland Security and Emergency Management*, *12*(4).

Sandler, T., & Enders, W. (2008). Economic Consequences of Terrorism in Developed and Developing Countries: An Overview. In P. Keefer & N. Loayza (Eds.), *Terrorism, Economic Development, and Political Openness* (pp. 17–47).

Schafer, J. A., Huebner, B. M., & Bynum, T. S. (2003). Citizen perceptions of police services: Race, neighborhood context, and community policing. *Police Quarterly*, *6*(4), 440–468.

Schlenger, W. E., Caddell, J. M., Ebert, L., Jordan, B. K., Rourke, K. M., Wilson, D., … Kulka, R. A. (2002). Psychological reactions to terrorist attacks: Findings from the National Study of Americans' Reactions to September 11. The *Journal of American Medical Association*, *288*(5), 581–588.

Schuster, M. A., Stein, B. D., Jaycox, L. H., Collins, R. L., Marshall, G. N., Elliott, M. N., … Berry, S. H. (2001). A national survey of stress reactions after the September 11, 2001, terrorist attacks. *New England Journal of Medicine*, *345*(20), 1507–1512.

Scott, S. B., Poulin, M., & Silver, R. C. (2013). A lifespan perspective on terrorism: Age differences in trajectories of response to 9/11. *Developmental Psychology*, *49*(5), 986–998.

Selznick, P. (1949). *TVA and the grass roots: A study in the sociology of formal organization* (Vol. 3). Berkeley: University of California Press.

Sherrieb, K., Norris, F. H., & Galea, S. (2010). Measuring capacities for community resilience. *Social Indicators Research*, *99*(2), 227–247.

Silver, R. C., Holman, E. A., McIntosh, D. N., Poulin, M., & Gil-Rivas, V. (2002). Nationwide longitudinal study of psychological responses to September 11. *Journal of American Medical Association*, *288*(10), 1235–1244.

Skogan, W. G. (1978). Citizen satisfaction with police services: Individual and contextual effects. *Policy Studies Journal*, *7*, 469–479.

Skogan, W. G. (2006). Advocate: The promise of community policing. In *Police innovation: Contrasting perspectives* (pp. 27–43). New York: Cambridge University Press.

Skogan, W. G., & Hartnett, S. M. (1999). *Community policing, Chicago style*. New York: Oxford University Press.

Skolnick, J. H., & Fyfe, J. D. (1995). Community-oriented policing would prevent police brutality. *At Issue: Policing the Police, Greehaven Press, San Diego, CA*.

Smith, B. L., Damphousse, K. R., & Roberts, P. (2006). *Pre-Incident Indicators of Terrorist Incidents: The Identification of Behavioral, Geographic, and Temporal Patterns of Preparatory Conduct*. 541.

Smith, B. W. (2005). Ethno-racial political transition and citizen satisfaction with police. *Policing: An International Journal of Police Strategies & Management*, *28*(2), 242–254.

Spalek, B. (2010). Community policing, trust, and Muslim communities in relation to "New Terrorism." *Politics & Policy*, *38*(4), 789–815.

Spelman, W., & Brown, D. K. (1981). *Calling the police: Citizen reporting of serious crime*. Police executive research Forum Washington, DC.

Stein, B. D., Elliott, M. N., Jaycox, L. H., Collins, R. L., Berry, S. H., Klein, D. J., & Schuster, M. A. (2004). A national longitudinal study of the psychological consequences of the September 11, 2001 terrorist attacks: Reactions, impairment, and help-seeking. *Psychiatry: Interpersonal and Biological Processes*, *67*(2), 105–117.

Stritch, J. M., Pedersen, M. J., & Taggart, G. (2017). The Opportunities and Limitations of Using Mechanical Turk (MTURK) in Public Administration and Management Scholarship. *International Public Management Journal*, *20*(3), 489–511.

Stuber, J., Fairbrother, G., Galea, S., Pfefferbaum, B., Wilson-Genderson, M., & Vlahov, D. (2002). Determinants of counseling for children in Manhattan after the September 11 attacks. *Psychiatric Services*, *53*(7), 815–822.

Sullivan, P. S., Dunham, R. G., & Alpert, G. P. (1987). Attitude structures of different ethnic and age groups concerning police. *The Journal of Criminal Law and Criminology (1973-)*, *78*(1), 177–196.

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, *48*(6), 1273–1296.

Tewksbury, R., & West, A. (2001). Crime victims' satisfaction with police services: An assessment in one urban community. *Criminal Justice Studies*, *14*(4), 271–285.

Trojanowicz, R. C., & Bucqueroux, B. (1990). *Community policing: A contemporary perspective*. Cincinnati, OH: Anderson Publishing Company.

Tyler, T. R. (2003). Procedural justice, legitimacy, and the effective rule of law. *Crime and Justice*, *30*, 283–357.

United States Department of State. (2018). *Country Reports on Terrorism 2017*. Retrieved from https://www.state.gov/reports/country-reports-on-terrorism-2017/

U.S. Department of Justice. (2017). *FY 2018 Congressional Justification: Office of Community Oriented Policing Services*. Retrieved from https://www.justice.gov/file/969011/download

Van Griethuijsen, R. A., van Eijck, M. W., Haste, H., den Brok, P. J., Skinner, N. C., Mansour, N., … BouJaoude, S. (2015). Global patterns in students' views of science and interest in science. *Research in Science Education*, *45*(4), 581–603.

Van Ryzin, G. G. (2005). Testing the expectancy disconfirmation model of citizen satisfaction with local government. *Journal of Public Administration Research and Theory*, *16*(4), 599–611.

Van Ryzin, G. G. (2013). An experimental test of the expectancy-disconfirmation theory of citizen satisfaction. *Journal of Policy Analysis and Management*, *32*(3), 597–614.

Van Ryzin, G. G., Immerwahr, S., & Altman, S. (2008). Measuring street cleanliness: A comparison of New York City's scorecard and results from a citizen survey. *Public Administration Review*, *68*(2), 295–303.

Van Ryzin, G. G., Muzzio, D., & Immerwahr, S. (2004). Explaining the race gap in satisfaction with urban services. *Urban Affairs Review*, *39*(5), 613–632.

Vasilenko, V. I. (2004). The Concept of Typology of Terrorism. *Statutes & Decisions: The Laws of the USSR and Its Successor States*, *40*, 46.

Victor, J. S. (2006). Why the terrorism scare is a moral panic. *The Humanist*, *66*(4), 9.

Vlahov, D., Galea, S., Resnick, H., Ahern, J., Boscarino, J. A., Bucuvalas, M., … Kilpatrick, D. (2002). Increased use of cigarettes, alcohol, and marijuana among Manhattan, New York, residents after the September 11th terrorist attacks. *American Journal of Epidemiology*, *155*(11), 988–996.

Waugh Jr, W. L. (1986). Integrating the policy models of terrorism and emergency management. *Review of Policy Research*, *6*(2), 287–300.

Wehrman, M. M., & De Angelis, J. (2011). Citizen willingness to participate in police-community partnerships: Exploring the influence of race and neighborhood context. *Police Quarterly*, *14*(1), 48–69.

Weisburd, D., Lum, C. M., & Yang, S.-M. (2003). When can we conclude that treatments or programs "don't work"? *The Annals of the American Academy of Political and Social Science*, *587*(1), 31–48.

Weitzer, R., & Tuch, S. A. (2005). Determinants of public satisfaction with the police. *Police Quarterly*, *8*(3), 279–297.

Wilcox, R. R., & Keselman, H. J. (2004). Robust regression methods: Achieving small standard errors when there is heteroscedasticity. *Understanding Statistics*, *3*(4), 349–364.

Wilson, J. M. (2005). *Determinants of community policing: An open systems model of implementation*. Rand Infrastructure, Safety, and Environment Washington, DC.

Wilson, J. Q. (1978). *Varieties of police behavior*. Cambridge, MA: Harvard University Press.

Winkel, F. W. (1986). Reducing fear of crime through police visibility: A field experiment. *Criminal Justice Policy Review*, *1*(4), 381–398.

Xu, Y., Fiedler, M. L., & Flaming, K. H. (2005). Discovering the impact of community policing: The broken windows thesis, collective efficacy, and citizens' judgment. *Journal of Research in Crime and Delinquency*, *42*(2), 147–186.

Yuksel, Y., & Tepe, F. (2013). Citizen satisfaction with police and community policing. *European Scientific Journal, ESJ*, *9*(14).

Zafirovski, M., & Rodeheaver, D. G. (2013). *Modernity and Terrorism: From Anti-Modernity to Modern Global Terror*. Leiden: Brill.

Zhao, J., He, N., & Lovrich, N. P. (1998). Individual value preferences among American police officers: The Rokeach theory of human values revisited. *Policing: An International Journal of Police Strategies & Management*, *21*(1), 22–37.

Zhu, S., Song, J., Hazen, B. T., Lee, K., & Cegielski, C. (2018). How supply chain analytics enables operational supply chain transparency: An organizational information processing theory perspective. *International Journal of Physical Distribution & Logistics Management*, *48*(1), 47–68.