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A Quantitative Approach to Police and Mental Health Training

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This is to certify that the doctoral dissertation by

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Abstract

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Master of Philosophy, Walden University, 2019

MA, St. Cloud State University, 2010

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Proposal Submitted in Partial Fulfillment

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Abstract

The effectiveness of mental health training for police officers and the officers' subsequent interactions with individuals with mental illness has been well researched. There is a lack in documentation on any differences in the hours of mental health training officers receive and their perceptions of individuals with mental illness. There is also a lack in research looking at any differences between officers who volunteered for mental health training and those who did not. The purpose of this quantitative study was to explore any differences between police officers who volunteered and those who did not for informal, formal, and crisis intervention team training as measured by their perceptions of individuals with mental illness after training completion. The goal of this study was to collect data from police officers in the state of Minnesota using the Mental Health Attitude Survey for Police. This survey was distributed online via Survey Monkey to police officers through department-issued emails from police chiefs or sheriffs. The theoretical framework for this study was contact theory. There were 130 participants in this study and the data revealed that there was not a significant difference of police officer's attitudes toward individuals with mental illness after completion of mental health training at various hours. Results were analyzed through an ANOVA. The data revealed a significant difference between police officers who had volunteered for their mental health training versus those who were mandated. This study can lead to positive social change by enhancing mental health training needs for police officers, increasing mental health knowledge, and improving relations and increasing safety between/for police officers and individuals with mental illness.

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Dedication

This study is dedicated to my two amazing sons, Ty and Chase. They have been with me for the entirety of this journey, and I am so proud to have completed this for them. They have seen the good and bad of an educational journey, including sacrificing time with them in order to focus. I hope they know that they can also achieve anything they put their minds to.

I also dedicate this study to my beautiful girls, Blayke and Ashtyn. Even though neither of you have any idea of what this means now, I hope that one day you will see you can accomplish anything.

Finally, I dedicate this study to the entire reason for this study: the men and women serving our communities as police officers. You are appreciated and supported—hold the line.

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I also want to thank Dr. Victoria Latifses, my URR: Your feedback and support were greatly appreciated.

Finally, I wish to thank my family. My kids for always being supportive and understanding. To my husband for supporting me and allowing me to finish what I started.

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Chapter 1: Introduction to the Study

Introduction

Several high-profile mass shootings have occurred within the last 15 years, including the 2007 Virginia Tech shooting; the 2011 Tucson supermarket parking lot shooting that included U.S. Representative Gabrielle Giffords; the 2012 movie theater shooting in Aurora, Colorado; the 2012 Sandy Hook elementary school shooting; the 2015 shootings/stabbings at University of California-Santa Barbara; the 2018 Parkland, Florida, high school shooting; and the 2018 Thousand Oaks, California, bar shooting (Chuck, Johnson, & Siemaszko, 2018; Stanglin, & Curley, 2018; Stone, 2018). These cases have all drawn attention to mental health as each of the suspects Seung-Hui Cho, Jared Lee Loughner, James Holmes, Adam Lanza, Elliot Rodger, Nikolas Cruz, and Ian David Long were said to be suffering from some type of mental illness. This has put emphasis on how best to approach mental health issues within communities. Police officers are often the first line of contact with mentally ill individuals. The focus of this study was to explore the completion of varying hours of mental health training on police officer attitudes. The outcome of this study has the potential for positive social change in that it could change the way police training is conducted, improve relations between police officers and individuals with mental illness, increase awareness about the importance of mental health training, and increase safety for police officers.

Chapter 1 provides a synopsis of this study as well as the background of mental health training for police officers in the state Minnesota. The problem statement points to a greater need for further research regarding the impact of crisis intervention team (CIT)

training and formal and informal mental health training as they relate to police officers' perceptions and level of confidence during interactions with mentally ill citizens. The purpose of the study, research questions, theoretical foundation, and nature of the study follow. Chapter 1 concludes with the definitions of terms, assumptions, delimitations, limitations of the study, significance of the study, and the chapter summary.

Background

Beginning in 1955, The Mental Health Study Act introduced the theory of deinstitutionalization (Robey-Hooper, 2015). This theory focused on improving the treatment of individuals with mental illness by emphasizing the need for these people to seek treatment in less restrictive environments such as in their own communities (Hudson, 2016; Pillay, 2017; Robey-Hooper, 2015). Deinstitutionalization resulted in the closing of many of the state mental health facilities across the country, which left many individuals with mental illness in their communities with little to no resources due to community funding issues (Chaimowitz, 2012). After these closures and a lack of community resources, there was a significant increase in individuals with mental illness encountering the criminal justice system (Brandt, 2012; Kubiak et al., 2017; Mulay, Vayshenker, West, & Kelly, 2016).

With the increase in individuals with mental illness experiencing contact with the criminal justice system, the first entity to feel this surge has been police departments. Police officers are often the first line of contact between individuals with mental illness and the criminal justice system because they are one of the few departments that works

every single day of the year (Krameddine & Silverstone, 2015; Margolis & Shtull, 2012). It is estimated that approximately 10% of police calls involve an individual with mental illness (Compton et al., 2014). These calls fall into one of five categories: (a) being a victim of crime, (b) a witness of a crime, (c) a low-priority call, (d) a potential suspect of a crime, or (e) a danger to themselves or the public (Margolis & Shtull, 2012). These calls can be perceived as problematic for police officers because they generally take a greater amount of time to resolve, require a higher degree of knowledge and skill, may involve a repeat subject, and ultimately, may involve violence (Canada, Angell, & Watson, 2012; Margolis & Shtull, 2012).

Police officers are often referred to as *gatekeepers* when it comes to situations involving an individual with mental illness because they can introduce these individuals to the criminal justice system. Officers have the discretion to detain an individual in crisis without a warrant, transport the individual to a mental health facility or jail, or handle the situation in an informal manner (Bonfine, Ritter, & Munetz, 2014; Desmarais et al., 2014; Ivancevich, 2015; Thompson & Kahn, 2018; Watson, Swartz, Bohrman, Kriegel, & Draine, 2014). Being able to identify an individual with mental illness and their needs has proven to be a significant aspect of police officer duties and can affect the outcome of the situation.

Developing the aptitude of identifying and building added skills to deal with situations with individuals with mental illness starts with mental health training. The quality and quantity of a police officer's mental health training can have an impact on

how the officer interacts with an individual with mental illness. There are various mental health trainings or components available to police officers around the United States. One such training is the CIT training, which has been implemented in over 2,700 police departments across the country (Compton, Broussard, Reed, Crisafio, & Watson, 2015; Compton et al., 2014; Jines, 2016; Kubiak et al., 2017).

CIT training was developed in 1988 in Memphis, Tennessee, after a fatal police interaction with an individual with mental illness (Hanafi, Bahora, Demir, & Compton, 2008). There are several goals of CIT training, including decreasing injury for both police officers and individuals with mental illness, diverting individuals with mental illness from the criminal justice system, and to linking individuals with mental illness to community mental health resources (Bailey et al., 2018; Campbell, Ahalt, Hagar, & Arroyo, 2017; Ellis, 2014; Jines, 2016). CIT training is typically 40 hours in length and includes training on identifying mental health signs and symptoms, needs of individuals with mental illness, and community resources (Compton et al., 2014; Cuddeback, Kurtz, Wilson, VanDeinse, & Burgin, 2016; Ellis, 2014; Kubiak et al., 2017; Mulay et al., 2016; Watson et al., 2014). Also included in the training are various deescalation techniques, role-playing activities, and testimonials from both police officers who have completed the training and from individuals with mental illness (Ellis, 2014; Jines, 2016).

Previous research has shown that CIT training has had a positive impact on police officer interactions with individuals with mental illness. Several variables have been measured including arrest rates, use of force, officer injuries, and the ability to identify

mental illness (Ivancevich, 2015; Morabito, Socia, Wik, & Fisher, 2013; Mulay et al., 2016; Sellers, Sullivan, Veysey, & Shane, 2005). Numerous studies have also shown improvement in knowledge of mental illness, deescalation skills, attitudes and stigma of individuals with mental illness, police officer confidence levels, and referrals to a mental health resource (Booth et al., 2017; Compton et al., 2014; Cuddeback et al., 2016; Ellis, 2014; Hanafi et al., 2008; Kubiak et al., 2017; Mulay et al., 2016).

Other mental health trainings have also shown significant improvement in interactions between police officers and individuals with mental illness. Pinfold et al. (2003) found an improvement in police officer knowledge on mental health and attitudes toward individuals with mental illness after completion of a mental health educational course. Krameddine, DeMarco, Hassel, and Silverstone (2013) also completed a study to determine the effectiveness of a 1-day training mental health training for police officers, revealing improvement in police officer behavior. Krameddine and Silverstone's (2015), showed improvement in police officer communication, deescalation skills, empathy, and confidence level after a 1-day mental health training.

The results of these studies show the importance of mental health training for police officers no matter the length of the training. There is a gap in the literature as far as comparing police officers who have completed 40-hour CIT training versus those who have completed other mental health trainings of varying hours. There is also a gap concerning whether the mental health training received was voluntary. In July 2018, Minnesota legislation changed police officer mental health training requirements, stating

that each officer must have at least 16 hours of training every 3 years (The Office of the Revisor of Statutes, 2016). In this study, I focused on any differences in police officer knowledge of mental health, confidence levels, and attitudes after completing mental health training at varying levels (informal, formal, and CIT) as well as whether training was voluntary.

Problem Statement

In the 1950s and 1960s, the release of mental health patients from psychiatric facilities to their respective communities to receive treatment (the concept of deinstitutionalization) began due to a lack of funding and overcrowding issues (Chaimowitz, 2012). Between 1955 and 1994, the general population increased from 164 million to 250 million people in the United States, while available psychiatric beds decreased from 559,000 to 72,000 (Chaimowitz, 2012). More severely mentally ill individuals are now residing in the community, and when these individuals are in crisis, they may be at a higher risk of interacting with law enforcement because they may be perceived as dangerous or overly aggressive (Browning, Van Hasselt, Tucker, Vecchi, 2011). Due to these perceptions, police officers may be at an increased risk for injuries, a greater chance of using force, and repeated contact with these individuals. This may lead to the further criminalization of mentally ill individuals, as well as more negative views of these individuals by police officers (Browning et al., 2011).

In recent studies, authors have indicated that there is an insufficient amount of police officer training in mental health components (Compton et al., 2014; Canada et al., 2012; Morabito et al., 2017). This insufficiency leads to police officers who are ill-

equipped to manage situations with individuals suffering from mental health crises in the community. The Crisis Intervention Team (CIT) program can best be described as a model that is, "designed to improve officers' ability to safely intervene, link individuals to mental health services, and divert them from the criminal justice system when appropriate" (Hanafi et al., 2008; Watson & Fulambarker, 2012, p. 72). The key goals of CIT training are to improve relations between police officers and mentally ill individuals, to decrease criminalization of individuals with mental illness by linking them with community resources, and to provide a more effective form of mental health service in the community (Browning et al., 2011). Researchers have looked at the effectiveness of CIT training on several factors including: the ability to handle mental health related calls effectively, officer attitudes about and perceptions of those with mental illness, impact on arrest rates of mentally ill individuals, officer injuries, positive impact on outcomes, length of time at calls, special weapons and tactics (SWAT) team call-outs, and enhanced knowledge on the subject of mental health (Bonfine et al., 2014; Campbell et al., 2017; Compton et al., 2014; Cuddeback et al., 2016; Ellis, 2014; Hansson & Markström, 2014; Helfgott, Hickman, & Labossiere, 2016; Hoffman, Hirdes, Brown, Dubin, & Barbaree, 2016; Kubiak et al., 2017; Mulay et al., 2016; Tomar et al., 2017). The results have shown positive effectiveness of the CIT training program; however, there is no research looking at the differences between CIT trained officers and formally and informally trained officers in the areas of police attitude, knowledge of mental health, or confidence level. In addition, researchers have not examined the differences between officers who volunteered for training versus those who were required to complete the training; not all

police mental health training is voluntary. With a significant amount of calls for service involving mentally ill individuals for all police officers, these variables need further attention to determine the importance of formal and informal mental health trainings for all police officers.

Purpose of the Study

The purpose of this quantitative study was to examine police officers who volunteered and those who did not volunteer for formal and informal mental health training as measured by their perceptions of individuals with mental illness after completion of the training. In this study, I used the CIT model, which has been implemented in over 3,000 police departments across the world and incorporates training for police officers and dispatchers to help identify mental health situations (Watson & Fulambarker, 2012). Informal mental health trainings were also used in this study in the form of conferences and subcomponents of other training programs. Contact theory was tested to compare formal and informal mental health training and police officer perceptions. The independent variables were *informal mental health training* (0-16 hours), *formal mental health training* (17-39 hours), and *CIT training* for police officers. The dependent variables were *police officer attitudes*, *knowledge of mental health*, and *level of confidence* when handling calls for service with individuals with mental illness. In this exploratory study, I used surveys of police officers within various departments across the state of Minnesota regarding informal, formal, and CIT training. I explored the importance of formal mental health training for all police officers to improve relations

between police officers and individuals with mental illness and to keep both parties safer in their day-to-day contact.

Research Questions

RQ1: Are there significant differences in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after they have completed informal (under 16 hours), formal (16-40 hours), and CIT training?

$H_0$1: There is no difference in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after completion of informal (under 16 hours), formal (16-40 hours), and CIT training?

H_A1: There is a difference in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after completion of informal (under 16 hours), formal (16-40 hours), and CIT training?

The dependent variables for RQ1 was measured by data collected from the Mental Health Attitude Survey for Police (MHASP). Total scores from the MHASP was determined by calculating scores from all four factors and reverse coding Factor 3. A higher score shows a more positive attitude toward individuals with mental illness (Clayfield et al., 2011).

RQ2: Are there significant differences in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training?

$H_0$2: There is no difference in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training.

H_A2: There is a difference in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training.

The dependent variable for RQ2 was police officer perceptions of individuals with mental illness. The independent variable was whether the police officer volunteered for the mental health training. This research question was analyzed using an independent-samples *t*-test.

Theoretical Framework

In this study I utilized contact theory as a basis for exploring the research questions and hypotheses. Contact theory originated in 1945, when Brophy (1945) examined the relationships between African American and Caucasian sailors, noting that the more voyages taken together the greater improvement in relationships. There have been several additions to the original study by Brophy, with the last updates from Pettigrew in 1998. One of the main ideas of the contact theory is that increased interactions between groups will decrease prejudicial perceptions, so long as these interactions are positive in nature (Desmarais et al., 2014). Police officers are often the

first contact an individual with mental illness will have with the criminal justice system. These individuals may be in crisis or are a victim of a crime. During these times of crisis, both police officers and individuals with mental illness are experiencing less than positive circumstances; police experiencing these contacts at a much higher rate than the general public. Another key takeaway from contact theory is that the more a group learns about a group in question, the less likely the group is to have a negative stigma towards that other group (Kanol, 2014). This is an important aspect to this study as increased knowledge of mental illness (via training) for police officers could impact negative stigma of individuals with mental illness.

Based on the tenets of contact theory, police officers and individuals with mental illness are likely to have less than positive perceptions of each other for a variety of reasons. Approximately 10 % of police officers' day-to-day calls involve individuals with mental illness (Watson & Angell, 2013). Calls for service involving mentally ill individuals generally take a longer period of time than general population calls, and additional tactics are commonly required to resolve the situations because ordinary police tactics do not work with this population, especially when the individual is facing a crisis (Canada et al., 2012). Contact theory also supports the idea that mental health training for police officers may positive by helping to reduce police officers' negative stigma of individuals with mental illness. Contact theory relates to the research questions of this study, and it will be explored in greater detail in Chapter 2.

Nature of Study

The research design that was used for this study was a quasi-experimental contrasted-groups design. This design was the best approach because random selection was not possible as a reult of having to separate officers who volunteered, officers who did not volunteer, and the three levels of mental health training (informal, formal, and CIT training). Frankfort-Nachmias and Nachmias (2008) explained that a contrasted-groups design allows for individuals to be placed in a specific category based on an element that identifies them with other like individuals. With this research design, I had the ability to accurately compare variables with officers who were introduced to the independent variable (mental health training) and at what level (informal, formal, or CIT), while also accounting for any differences between officers who volunteered and those who did not.

Police officers were asked to complete the MHASP, which is comprised of 37 items administered in a 6- point multiple choice Likert- type scale ranging from 1 (strongly agree) to 6 (strongly disagree). Various components were covered, including authoritarianism, benevolence, social restrictiveness, and community health ideology, whether or not officers feel they have the knowledge to deal with those with mental illness, whether officers feel confident in their ability to deal with this population, and whether officers believe that they have been trained properly (Clayfield et al., 2011).

Definition of Terms

Crisis Intervention Team (CIT): Police training designed to, "enhance police officers' interactions with individuals with mental illness and improve the safety of all

parties involved in mental health crisis" (Ellis, 2014, p.11). CIT training is a mental health training that was developed in 1988 in Memphis, Tennessee, and is a 40-hour training aimed at increasing an officer's knowledge of mental health and skills so the officer is better equipped to handle situations with individuals with mental illness (Clayfield et al., 2011).

Formal Police Training: Police training that is specifically targeted at expanding police officer knowledge and techniques for dealing with individuals with mental illness. For the purposes of this study, this is defined as at least 17 hours of mental health training, but less than 40 hours.

Informal Police Training: Informal training, for this study, is defined as any police officer training that is not specifically mental health focused but does include some aspects of this subject. For the purposes of this study, this is further defined as training of between 0 and 16 hours completed.

Police Officer Attitudes: Attitude incorporates an individual's values and beliefs that can have a significant impact on a person's behavior (Clayfield et al., 2011). Other factors that can have an impact on a person's attitude include any prejudicial, stigma, or misinformation about the group being considered (Clayfield et al., 2011). In this study, a police officer's attitude specifically focuses on individuals with mental illness. This is the definition of the authors of MHASP, the assessment used in this study.

Knowledge of Mental Health: As defined for this study, is the art of knowing mental health, with understanding, that is gained through experience (Merriam-Webster, 2019a). Without proper knowledge of mental health, police officers may perceive individuals with mental illness behavior as erratic or dangerous considering the situation at hand (Henshaw & Thomas, 2012).

Level of Confidence: The definition of confidence is the idea that one will perform in an effective or correct manner (Merriam-Webster, 2019). Confidence level, as defined for this study, is how well prepared an officer is when handling a situation with an individual with mental illness (Clayfield et al., 2011).

Mental Illness: Mental illness as defined by the Substance Abuse and Mental Health Services Administration is any change that occurs in an individual's thinking, behaving, and mood, that can affect the way that people interact with others as well as the choices they make (Mental and Substance Use Disorders, 2017). The *Diagnostic and Statistical Manual of Mental Disorders* (5^{th} ed.) further explains that mental illness is the result of an abnormality in the brain structure and function that affects an individual's thoughts, feelings, and behaviors (Lurigio, 2020). Further complicating the mental illness definition is substance abuse and use. Substance abuse and use are often associated with a co-occurring mental illness (Noga et al., 2016).

Mental Health Attitude Survey for Police (MHASP): A 37 item instrument created to assess police officers' attitudes toward individuals with mental illness (Clayfield et al., 2011).

*Deinstitutionalization***:** The transition from traditional mental health facilities to, "smaller, less restrictive, community-based care facilities, group homes and families, where independent functioning could be encouraged" (Pillay, 2017, p. 143).

Assumptions

There are several assumptions that need to be identified in this study. The first assumption was that every or almost every police officer in the state of Minnesota has had some contact with an individual with mental illness. This assumption needs to be considered as the focus of this study involves police officers contact with individuals with mental illness. The second assumption was that not all police officers have enough knowledge of mental health and individuals with mental illness. This assumption is based on the literature and will be covered in Chapter 2. The third assumption was that all police officer participants would understand the survey and would respond in an honest manner. The fourth assumption was that the participant sample would adequately represent a larger population of police officers in Minnesota. The last two assumptions are important aspects that must be considered as part of the results of this study.

Scope and Delimitations

The scope of this quantitative contrasted-groups study focused on police officer attitudes, knowledge of mental health, and confidence levels after receiving varying mental health trainings. This was evaluated using Clayfield et al.'s (2011) Mental Health Attitude Survey for Police (MHASP), which was delivered electronically to all

participants via Survey Monkey. Also included in this study was whether the police officer volunteered for the mental health training or if these trainings were mandatory. Recent studies have identified the impact of mental health training for police officers and their subsequent interactions with individuals with mental illness on various levels (Booth et al., 2017; Compton et al., 2014; Cuddeback et al., 2016; Ellis, 2014; Hanafi et al., 2008; Ivancevich, 2015; Kubiak et al., 2017; Morabito et al., 2013; Mulay et al., 2016; Sellers et al., 2005). These levels include arrest rates, police officer perceptions, and confidence level when dealing with an individual with mental illness. There has been a lack of knowledge surrounding any differences in police officer attitudes after receiving varying hours of mental health training and whether the trainings were voluntary or mandatory. Because of this lack in knowledge, the current study was necessary to identify police officer training needs. In this study, I also explored any differences between varying hours of mental health training for police officers as this has not been investigated before.

The target population for this study was police officers in the state of Minnesota who had completed anywhere between 0 and 39 hours of mental health training and CIT training or above. One delimitation of the study was that the boundary of police officers within the state of Minnesota was set to account for recent legislative changes surrounding mental health training requirements for police officers. Due to this boundary, police officers outside of Minnesota were not included in this study. While there could be differences in policies and practices in other states, the results of this study should be applicable to other police officers outside the geographic area selected.

Limitations

The focus of this study was on police officer attitudes, knowledge of mental health, and level of confidence relating to calls for service with individuals with mental illness after completion of mental health training in Minnesota. Because this study was limited to police officers in the Minnesota, the results may not be similar for police officers in other geographic locations due to different experiences. Training requirements and department polices may also differ in other locations, resulting in differences in police officer experiences.

Another limitation area to consider for this study was whether a police officer volunteered for the specified training or if the training was mandatory. Starting in July of 2018, Minnesota police officers were required to complete at least 16 hours of mental health training every 3 years. There is a possibility that an officer may have different feelings about completing the training now that the 16 hours is mandatory versus before the policy was in place. This, in turn, may later impact their attitudes toward individuals with mental illness. An additional safeguard has been incorporated into this study to account for this potential limitation by adding the additional survey question of whether the mental health training completed was voluntary.

Participant honesty and willingness to answer all of the questions of the survey may also be a limitation to this study and was addressed in the assumptions section as well. There could be various reasons a police officer may not be willing to answer all the questions of the survey or not answer them in an entirely honest manner. These reasons

could include the police officer being seen in a less than perfect light or that the reason for the survey is to identify wrongdoing. To help combat this potential limitation, the informed consent form included the fact that completion of the survey was voluntary and provided information on the purpose of the study. The consent form also stated that the study was completely anonymous and no identifying information was collected. There was no way to know which officer completed which survey. I was also available to answer any questions that arose regarding any component of the study via email and/or phone.

Significance of the Study

In 2012, the Bureau of Statistics revealed 37 % of federal prisoners, and 44 %of jail inmates had been told at one point in their lives that they suffered from a mental health disorder (Bronson & Berzofsky, 2017). Additionally, 1 in 7 prisoners and 1 in 4 jail inmates reported meeting the definition of serious mental illness (Bronson & Berzofsky, 2017). With police officers often the first contact to the criminal justice system for individuals with mental health issues, it was important to explore these relationships. Looking at the impact of formal/informal mental health training on behalf of all police officers had the potential to expand this area in one of two ways: importance of current trainings and new research for updated training approaches. In either situation, changes could arise that may have the potential for safer interactions between police officers and mental health individuals that are being served in communities. The more police officers are educated and made aware of mental health issues, the higher the

likelihood that police officers will increase their own safety as well as the safety of those they are serving in their communities.

An original contribution was provided in this study by exploring the relationship between police officers who volunteered for informal and formal mental health training (CIT) and those who did not, specifically looking at police attitudes of mentally ill individuals after program completion. By providing this additional data, I sought to determine a potential impact of formal and/or informal mental health training for all police officers across the country. This could have an important impact and significance on the training needs of police officers by providing alternative means in their day-to-day activities and approaches. The results of this study could also have a significant impact on positive social change in the areas of improved relations between police officers and individuals with mental illness, increased awareness of mental health among U.S. communities, increase awareness of the need of additional mental health resources within communities, and additional police resources that may improve end results of interactions with individuals with mental illness.

Summary

Because of the increase in contact between police officers and individuals with mental illness contact, it was essential to explore police officer attitudes, knowledge of mental health, and levels of confidence after completion of mental health training was described in this chapter. This chapter included significant details of the study including the problem statement, purpose of the study, nature of the study, and the research

questions and hypotheses for the study. I used contact theory as the theoretical framework for this study, and this was also briefly explained in this chapter. Assumptions, limitations, and the significance of the study were also touched upon in Chapter 1. Chapter 2 will include a thorough background of the literature, including a review of contact theory. Main topics that will be discussed include mental illness, deinstitutionalization, impact on the criminal justice system, police training, and police perceptions.

Chapter 2: Literature Review

Introduction

During the last several years, the much-debated issue of mental illness and subsequent interactions with police officers have come to the forefront. In the last 10 years alone, there have been several high-profile cases involving questions about the mental health condition of the suspect. Some of the more recent cases include: the 2011 mass shooting in Tucson, Arizona, that injuried former U.S. Representative Gabrielle Giffords; the 2012 movie theater shooting in Aurora, Colorado; the 2012 Sandy Hook elementary school shooting in Newtown, Connecticut; and the 2015 shootings/stabbings in Isla Vista, California near the University of California-Santa Barbara. The suspects in these terrible crimes; Jared Lee Loughner, James Holmes, Adam Lanza, and Elliot Rodger were all alleged to be suffering from some form of mental illness at the time of the act of violence (Jines, 2016). These incidents have changed the way that law enforcement officials look at individuals with mental health issues, and how best to approach situations involving individuals with mental illness (Jines, 2016).

Police officers are often the first line of contact with mentally ill individuals when they enter the criminal justice system (Krameddine & Silverstone, 2015). Mental illness can be defined as a change in a person's thinking, behavior, or mood that impacts how a person interacts with others and makes choices (Compton et al., 2014; Mental and Substance Use Disorders, 2017). Police officers work around the clock and often encounter individuals with mental illness when they are in crisis. Police officers have the ability to detain individuals who may be in crisis without a warrant, and also have

equipment and defensive tactics needed to control a situation should it get out of hand (Ivancevich, 2015). It is at this point that a police officer may be considered a gate keeper because of their role in determining what ultimately happens to these individuals; taken to a mental health facility, handling the call in an informal manner, or jail (Bonfine et al.; Desmarais et al., 2014; Thompson & Kahn, 2018; Watson et al., 2014). When the last option is elected, the person is incarcerated, this could potentially present an additional issue for correctional staff and facilities across the United States. One important aspect in a police officer's decision in how to handle a situation with an individual with mental illness lies in their training. Research shows that a lack of training in mental illness leads to escalations that may turn violent, as well as potential injuries to both the officer and the individual with mental illness (Krameddine & Silverstone, 2015; Watson & Angell, 2013). Police officers oftentimes do not receive mental health training even though many of them recognize the importance in their day-to-day activities (Compton et al., 2014).

This chapter offers a review of the literature relating to police interactions with the individuals with mental illness, police perceptions of mentally ill individuals, and mental health training for police officers. This chapter also features a historical look at the theory of deinstitutionalization as it relates to the increased police contact with individuals within communities dealing with mental illness. This chapter will focus on the prevalence of the mentally ill population within the criminal justice system including the impact on jails and courts. Finally, this study explores the impact of formal and informal mental health training for police officers, their subsequent perceptions of

individuals with mental illness after completion of training, and the significance of voluntary or involuntary mental health training for police officers

Search Strategy

The search engines I used for the literature review included Google Scholar, ProQuest, PsycARTICLES, PsycINFO, SocINDEX, Criminal Justice Database, Oxford Criminology Bibliographies, Bureau of Justice Statistics, and SAGE Journals. The key search terms I used in the search were: *institutionalization, deinstitutionalization, community health, criminalization, mental illness, jail, prison, mental health training, crisis intervention team, police officer perception, mentally ill, stigma, criminal justice system, courts, contact theory, cadet training, formal,* and *informal training*. These search terms were used in a variety of combinations. An additional search strategy was used that involved looking at additional references from the initial searches to find additional sources for this study. The timeframe for the sources used initially included seminal and peer-reviewed sources from 2012 to present, and this period was adjusted to 2013-present as this study continued into 2018. There were very few sources that were not considered current or within the last five, but some were used to show important historical aspects of the study.

Theoretical Framework

This study will utilize contact theory as the theoretical framework for exploring the hypotheses. Beginning as early as 1946, Brophy began looking at the relationships between Caucasian and African American sailors, discovering that there was an improvement in racial attitudes when more voyages that were taken together (Pettigrew

& Tropp, 2006). This was followed by Kephart in 1957, who found Caucasian police officers had fewer negative feelings toward their African American counterparts if they were partnered as well as if there were African Americans in higher ranking positions (Pettigrew & Tropp, 2006). Contact theory further derives from Allport's (1954) intergroup contact theory in which there are four factors that can contribute to an improvement in relationships between intergroups: (a) the groups share equal or almost equal status, (b) participants work toward a common goal, (c) there is intergroup cooperation that is free of competition, and (d) there is support from an overarching authority who is involved in promoting these positive conditions (Broaddus et al., 2013; Kanol, 2014). Additions were added to these factors in 1986 by Wagner and Machleit with the idea that contact that is made should be voluntary and a common language should be present, and in 2005 by Maoz with the addition of active participation (Kanol, 2014). Yet another addition was added in 1998 by Pettigrew, who introduced processes that may enhance relationships between groups after contact. The important aspect as it relates to this study incorporates learning about the other group as this can decrease negative stigma as the group learns more about the group in question (Kanol, 2014).

Contact theory has been utilized specifically between many different groups - race, police, people with mental illness, etc. Contact theory as it pertains specifically to people with mental illness suggests that contact between these individuals and those in the community may change stigma that may be present. This was demonstrated by Pettigrew and Tropp's (2006), who showed an improvement in prejudice after just one instance of contact, and an improvement in attitude even one week later. It should be

noted that this study was completed between mentally ill individuals and the public but could be generalized into police/mentally ill contact. Stigma changes can be associated with looking at groups that serve as a type of authority over those with mental illness. In this case, a police officer would serve as this type of authority as an officer would have authority over what to do in a situation with an individual with mental illness. This includes the various role that an individual with mental illness may play victim, suspect, and reporting party.

The main idea of the contact theory is that increased interactions between groups will decrease prejudicial perceptions, as long as these interactions are positive in nature (Desmarais et al., 2014). Police officers are often the first contact a mentally ill individual will have with the criminal justice system. These individuals may be in crisis or are a victim of a crime. It is during these times that both police officers and individuals with mental illness are experiencing less than positive circumstances, with police experiencing these contacts at a much higher rate than the general public. Positive interactions oftentimes result in positive outlook of police officers by the group in question, while negative interactions lead to negative views of police officers (Kanol, 2014).

Approximately 10% of a police officer's day-to-day calls involve individuals with mental illness (Watson & Angell, 2013). Calls for service involving mentally ill individuals generally take a longer period of time than general population calls, and additional tactics are commonly required to resolve the situations because ordinary police

tactics do not work with this population, especially when the individual is facing a crisis (Canada et al., 2012). With contact theory in mind, one can generalize that police officers and individuals with mental illness may have less than positive perceptions of each other for these reasons.

Mental Illness

Definition

Mental illness as defined by the Substance Abuse and Mental Health Services Administration (2019) is any change that occurs in an individual's thinking, behaving, and mood, that can affect the way that people interact with others as well as the choices they make (Compton et al., 2014; Substance Abuse and Mental Health Services Administration, 2019). The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; American Psychological Association, 2013) further explains that mental illness is the result of an abnormality in the brain structure and function that affects an individual's thoughts, feelings, and behaviors (Lurigio, 2020). Along with this definition, there are three required components to a mental illness: (a) distress (the impact on emotional well-being); (b) impairment/disturbance (the inability to perform well in school or work, or the ability to develop healthy relationships or habits); and (c) comportment (the ability to behave in a socially accepted manner) (Gala & Laughon, 2017; Lurigio, 2020). Mental illness includes a variety of disorders that are wide ranging in severity from mild to severe, with symptoms ranging from anxiety to hallucinations. These disorders can be further broken down into two broad categories: any mental illness (AMI) and serious mental illness (SMI) (National Institute of Mental Health, 2019). Both of these

categories are defined as, “a mental, behavioral, or emotional disorder”, with SMI also including a significant impact on an individual’s daily functioning (National Institute of Mental Health, 2019). Substance Abuse and Mental Health Services Administration (2019) further defines SMI, “as having, at any time during the past year, a diagnosable mental, behavior, or emotional disorder that causes serious functional impairment that substantially interferes with or limits one or more major life activities.”

In 2017, there were approximately 46.6 million adults who suffered from AMI, which accounted for 18.9% of the U.S. population, while there were approximately 11.2 million adults who suffered from SMI, accounting for 4.5% of the population (National Institute of Mental Health, 2019). An estimated 1 in 4 individuals who can be clinically diagnosed with some type of mental illness in the United States (Mulay et al., 2016). Also, of note, one in every eight emergency room visits involve a mental health or substance abuse issue (Steadman & Morrissette, 2016). These statistics show that there is still a significant number of individuals with mental illness that are not receiving any treatment for their disorders that may increase their chances of encountering the criminal justice system.

In addition to, and further complicating, the mental health dilemma is substance use and abuse. One other factor of note for substance abuse and co-occurring mental illness is the war on drugs era that began in the 1980's and 1990's, which further contributed to the increased number of individuals with mental illness being placed into the criminal justice system (White et al., 2006). Offenders in the criminal justice system have a lifetime substance abuse rate between 70 to 86%, which is a much higher rate

compared to the general population (Blevins & Soderstrom, 2015). Also of note, between 26 and 32% of offenders reported committing crimes while under the influence of alcohol or drugs. According to Dlugacz (2014), approximately 60-70% of individuals arrested in major cities across the United States were substance abusers, with about half of them also suffering from a co-occurring disorder. Several previous studies have associated mental illness with substance abuse, some suggesting that these two conditions occur among one another (Noga et al., 2016; White et al., 2006). In White et al.'s study (2006), 83% of offenders who were apprehended on a mental health hold reports alcohol use, and 43% reported drug use. Researchers also suggested that co-occurring substance abuse and mental illness is higher among criminal offenders (White et al., 2006). In Belko et al.'s (2003) study, the researchers found out of a study of 280 offenders, between 40 and 60% of felony substance abusers also had a mental illness disorder. Some researchers suggested that individuals with mental illness have a few factors that can have been linked to violent behavior, one of those factors being substance abuse (White et al., 2006). Violent behavior was also noted as significantly higher in inmates who had co-occurring disorders (Balyakina et al., 2014). All of these factors are important to incorporate when considering a police officer's interactions with individuals with mental illness as they present potential further complications in these situations.

Deinstitutionalization

Brief History of Institutionalization

In 1796, William Tuke created asylums as a means of treatment for individuals who were suffering from a mental illness (Robey-Hooper, 2015). Asylums were built

across the United States as more ethical means of providing treatment to individuals with mental illness (Chaimowitz, 2012). Many of these facilities had meager and unethical living and care conditions (Ivancevich, 2015). A lack of funding also caused overcrowding in these facilities. Many of the early private institutions were funded by wealthy patients. The solution for a lack of funding was an increase in patients, decrease in staffing numbers, and to separate individuals who were deemed "incurable" to areas in which they received no treatment (Robey-Hooper, 2015).

After the Civil War, state-run facilities were built to house large numbers of individuals who were suffering from mental illness (Robey-Hooper, 2015). These facilities also lacked in sufficient room for all of the patients that were being housed. This resulted in physicians being unable to provide adequate treatment and the thought that many of the individuals were dangerous that resulted in less than desirable restraint tactics (Robey-Hooper, 2015). The end of the 19th century saw the conditions decline in mental health facilities, and this captured the attention of the public who lost confidence in these facilities to treat the mentally ill (Robey-Hooper, 2015).

The early 20th century saw a shift in the way physicians and psychiatrists viewed treatment of those suffering with mental illness (Robey-Hooper, 2015). The previous approach to mental illness focused on a biological approach, believing that mental illness was the result of genetic or biological reasons and therefore treatment was viewed as virtually impossible. Dr. Adolph Meyer was the first psychiatrist to challenge this approach, believing that mental illness not only could be treated, but also potentially prevented (Robey-Hooper, 2015). Dr. Meyer was also one of four key players in the first

movement to change conditions within mental health facilities, namely the formation of the National Committee for Mental Hygiene in 1909, which focused on improving conditions, gave hope of recovery, and prevention of severe mental health issues that would result in hospitalization (Robey-Hooper, 2015). Despite this movement, there were several factors that resulted in an increase in the mental health facility population. Some of these factors included: The Great Depression which led to an increase in suicidal tendencies, a decline in the economy, which resulted in individuals turning to stealing and prostitution as a way to live, prohibition in 1933, which resulted in an increase in alcohol use, and the psychological effects of WWI and WWII (Robey-Hooper, 2015).

Definition and Reasons behind Deinstitutionalization

Deinstitutionalization began in 1955 when Congress developed the Mental Health Study Act, which was put in place to access the current mental health conditions and to look at available resources (Robey-Hooper, 2015). This study provided information on how individuals suffering from mental illness would be treated in the community, as well as information on improving conditions in facilities for those individuals who could not receive treatment in the community. This report landed on the desk of then President John Kennedy who decided to improve training and provide additional funding, with funding for mental health doubling within the first 5 years and tripling it over 10 years (Robey-Hooper, 2015). The Mental Health Study Act led to a significant decrease in individuals being housed in large institutions, the number of open facilities to decrease, and allowed for individuals with mental illness to live in a less restrictive environment such as their communities (Hudson, 2016; Pillay, 2017;Robey-Hooper, 2015).

Another important component of the theory of deinstitutionalization was the introduction of psychotropic drugs beginning in the 1950s and 1960s as a means to stabilize some of the symptoms of mental illness and provide a potential alternative to institutionalization (Pillay, 2017). Drugs such as chlorpromazine or thorazine were drugs initially intended to be used for general anesthesia, but doctors in the 1950s discovered that they could be used to mental illness as they were shown to lessen anxiety in surgery patients (Robey-Hooper, 2015). In the late 1960s the introduction of lithium was also used to assist with the symptoms of bipolar mood disorder and mania. The theory behind the use of psychotropic drugs was that once individuals could manage their symptoms through these drugs, they would be able to live and function in their communities (Robey-Hooper, 2015).

Another area for consideration on the reasons behind deinstitutionalization is the Neoliberalism, which occurred during the Reagan Administration. When Ronald Reagan was elected in 1980, there was a shift in the welfare system with the idea that more responsibility should focus on the individual rather than an expanded welfare system, to eventually focus on independence of individuals by cutting funding to programs focused on those less fortunate (Braslow, 2013). This directly impacted individuals with mental illness as the idea was to release them from an institution where they were dependent and place them in the community where they would be responsible for themselves. These individuals who were released from the institutions though, found that the communities lacked the resources they needed to gain their independence because of a lack of funding.

Many individuals with mental illness wound up on the street with no community sources available for treatment (Prins, 2011).

The last area to consider when looking at deinstitutionalization is the United Nations Convention on the Rights of Persons with Disabilities, which guides the right of individuals to live within their communities versus being isolated into mental health facilities (Klein, 2014). The idea behind this convention is to put the rights of individuals first, and to understand the meaning behind disability. Many countries have signed and endorsed the outlook, including the United States and the European Union (Klein, 2014). This history of deinstitutionalization demonstrates the changes in how the mentally ill are treated, with the shift from institutionalization to more of a community care approach. Deinstitutionalization can help to explain the increase in police contact with those suffering with mental illness.

Results of Deinstitutionalization

As a result of the Mental Health Study Act and the United Nations Convention of the Rights of Persons with Disabilities, several mental health facilities began closing during the 1960s, but many closed in the 1980's, with many entities simply closing their doors in a fairly quick response. For example, the number of state psychiatric beds dropped from 339 per 100,000 to 22 per 100,000 individuals between the years of 1955 to 2000 (Prins, 2011). This resulted from improper funding of the community clinics, which left individuals with mental illness in their communities without proper care (Mulay et al., 2016).

The goal of deinstitutionalization was to gradually downsize and eventually close facilities, while working simultaneously to develop community resources for individuals (Cummins & Edmondson, 2016; Klein, 2014). Deinstitutionalization focused on three main areas including releasing individuals with mental illness into their respective communities, new admission inquiries being divided into various community entities, and the introduction of specialized training and services for individuals in a non-facility setting (Ellis, 2014). Unfortunately, the community treatment piece failed to succeed, in large part due to the lack of funding because of economic crisis and the impending Vietnam War (Biswas, 2017; Dlugacz, 2014; Jines, 2016). Reintegration into the community once released from state facilities proved to be a hurdle for many former patients. Many of these patients had a lengthy period within their former institutions; many lacking in various areas including: social skills, social support, and other resources needed to make these transitions successful (Ellis, 2014). With the lack of available resources to these individuals, many were left homeless and not properly treating their illnesses (Ellis, 2014). Unemployment is also high among mentally ill individuals which also affects their mental stability (Davidson & Rosky, 2015). Other costs of deinstitutionalization for individuals with mental illness included disregard for additional health problems, the use of emergency rooms to handle social problems, incarceration, and an increase in mental health symptoms (Pillay, 2017).

The shift from institutionalization to community living happened quickly in part due to funding that was provided by the Medicaid Home and Community Based Services (HCBS) program that began in the 1990s. Community living included non-state-run

small group facilities, living with family members, or living self-sufficiently with the help of supports (Tichá et al., 2013). This resulted in a significant increase of individuals with mental illness that received HCBS from 1,381 to 616,491 between the years of 1994 to 2011; while those receiving benefits living with family members increased from 29,806 to 314,685 during these same years (Tichá et al., 2013). It should be noted that 97,522 are living independently (Tichá et al., 2013). The fact that the idea of deinstitutionalization did not necessarily go as planned with the lack in funding and available resources for individuals suffering from mental illness, shows an explanation of why the number of police contact with this population greatly increased.

Consequences of Deinstitutionalization Today

Because of the movement to release mentally ill individuals into their communities, many individuals continue to struggle with their illnesses in the communities in which they live (Chaimowitz, 2012). Research has shown that there has been a dramatic increase in the number of mentally ill individuals who are coming into contact with the criminal justice system (Brandt, 2012; Kubiak et al., 2017; Mulay et al., 2016). In 2013, per the Bureau of Justice Statistics, there were 2.3 million inmates that were in custody within the United States. This number reflects a decrease in the prison population; however, it should be noted that the number of inmates with mental health issues is rising (Grohs, 2016a). For example, per the California Department of Corrections and Rehabilitation (CDCR), there are currently thirty-eight thousand inmates, or one third of the CDCR inmates that are receiving some form of mental health treatment within these facilities (Grohs, 2016). These statistics show that there is a

significant number of individuals with mental illness that are entering the criminal justice system. The increase in the number of individuals with mental who are coming into contact with the criminal justice system due to deinstitutionalization is an important aspect to this study as it shows the reasoning behind increased contact with police officers.

Individuals with Mental Illness

Mental Health Stigma

According to Mulay et al. (2016), stigma refers to, “a mark or blemish that distinguishes an individual from others" (p. 370), and can result in stereotyping, discrimination, and labeling. This definition was expanded even further by clinical psychologists to individuals with mental illness and includes the idea that these individuals are violent, unpredictable, incompetent, and lack an ability to function (Mulay et al., 2016). Individuals with mental illness experience stigma in three different forms: public, structural, and self. Public stigma includes public perceptions of individuals with mental illness, with past studies showing 23% of participants believing those with mental illness are dangerous, and 38% believing this population is unpredictable (Mulay et al., 2016). The occurrence of rare but dramatic events involving individuals with mental illness can create public misperceptions and legislative changes (Crocker et al., 2015). Structural stigma refers to public policies that negatively affect those with mental illness, including laws that interfere with the rights of these individuals or the ability to vote (Mulay et al., 2016).

Individuals with mental illness who are incarcerated obtain the additional label and stigma of being criminal. Individuals with a criminal background without mental illness experience stigma from the community upon their release that can impact their ability to successfully reintegrate back into society. This additional factor may play a role in an individual with mental illness' choice to pursue appropriate treatment out of fear of being further stigmatized (Mulay et al., 2016). Also of note, substance abusers receive more criticism and discrimination due to the idea that they are more responsible for their actions versus those who suffer from a mental illness alone (Harnish et al., 2016).

Mental health stigma can have a negative effect on individuals with mental illness in a variety of way including the ability to obtain competitive employment, adequate housing, low self-esteem, and for some individuals it may prevent them from seeking appropriate treatment for their symptoms (Mulay et al., 2016). Ways to alleviate mental health stigma has focused around social contact, with research suggesting that increased contact may reduce stigma (Mulay et al., 2016). Stigma that is oftentimes placed on individuals with mental illness is an important aspect of this study as police officers themselves may have preconceived notions about these individuals before contact is made.

Police and Mental Health Stigma

Police contact with individuals with mental illness may present an additional factor in mental health stigma in that those with mental illness may have a fear of police and of police tactics that make an impact on interactions (Mulay et al., 2016). One of

these reasons may be because ordinary police tactics generally include the threat of physical force to gain compliance (Campbell et al., 2017). There may also be a sense of vulnerability due to a potential loss of freedom in situations where the individual with mental illness may be arrested for a crime they have committed or involuntarily taken for a psychological evaluation (Watson & Angell, 2013). Evidence suggests that contact with the criminal justice system can increase symptoms in an individual with mental illness (White et al., 2006). Additionally, individuals with mental illness commonly have negative perceptions of the police that could escalate a situation into something more violent (Krameddine et al., 2013). Individuals with mental illness who have experienced discrimination based on their mental health stigma, may lack cooperation with police and potentially respond in an alarmed manner (Watson & Angell, 2013). These experiences based on mental health stigma potentially lead to less than desirable interactions between individuals with mental illness and police officers.

Ordinary police academies teach the idea of authority to de-escalate a situation, but with individuals suffering from mental illness this approach can escalate the situation (Kubiak et al., 2017). In part due to a lack of training in de-escalation techniques, officers are more likely, and oftentimes quicker to use force with individuals with mental illness to address the situation in a timelier manner (Krameddine et al., 2013; Peters et al., 2017). Use of force can be defined by the International Association of Police Chiefs (IACP) as the amount of energy that is required of a police officer to gain compliance of an individual who is not cooperating (Kesic, Thomas, & Ogloff, 2013). The most extreme example of this was found in studies that were completed in the United Kingdom

and Canada, 27-48% of fatal encounters with police involved individuals with mental illness (Krameddine et al., 2013). These facts contribute to the need for additional training for officers that are better geared at serving individuals with mental illness.

The idea of criminalization takes into account the lack of mental health resources and the increased police contact that results in a higher number of individuals with mental illness who are incarcerated (Mulay et al., 2016). It should be noted that individuals with mental illness are rarely arrested based strictly on their psychiatric symptoms, and from a criminal stand point do not differ from those without mental illness in terms of criminogenic risk factors such as inability to control emotions, hostility, antisocial behaviors, and substance abuse (Mulay et al., 2016). Criminalization of individuals with mental illness stems from these individuals being treated in the criminal justice system instead of in a mental health facility (Liegghio & Jaswal, 2015).

Mental Health Treatment

Mental health treatment, as defined by the National Institute of Mental Health (2019), includes individuals who have received inpatient or outpatient treatment or counseling, or utilized prescription medication to combat mental health symptoms. In 2016, of the 44.7 million Americans with AMI, 43.1% or 19.2 million individuals had received treatment with in the last year (Mental Illness, 2017). Of the 10.4 million Americans with SMI, 64.8% or 6.7 million had received treatment within the last year (Mental Illness, 2017). As evidenced by these statistics, a high number of individuals with mental illness do not seek treatment for their illnesses for a variety of reasons. According to Haugen et al. (2017), many individuals with mental health issues do not

seek treatment, delay their treatment, do not follow the recommended regiment, or they receive insufficient care. Some of the reasons for lack of proper treatment include the individual not fully understanding the treatment itself, the thought that treatment is not needed, and the idea that treatment will not be successful (Haugen et al., 2017).

Individuals suffering from mental illness potentially also deal with other factors that may hinder their treatment and ultimately their contact with the criminal justice system. Some of these factors include being economically disadvantaged, which can lead to not having adequate health insurance to help with treatment. Many also have additional medical problems, higher rates of homelessness, lower education, lack of employment skills, trauma, and a family history of mental illness (Dlugacz, 2014). All these additional factors can play a role in the increased contact between those individuals suffering from mental illness and police officers. The treatment of mental health symptoms is an important aspect to police training to increase officers' knowledge and understanding on the subject.

Impact on the Criminal Justice System

Prevalence

Campbell et al., (2017) found that 40-50% of individuals with mental illness, being defined as serious mental illness (SMI), encounter the legal system at some point in their lives. Serious mental illness by these researchers includes, "schizophrenia, bipolar disorder, major depressive disorder, and co-occurring substance use disorders" (Campbell et al., 2017, p. 1) For instance, in Roseville, Minnesota mental health calls for service for police have increased twofold from 433 to 942 between the years of 2011 to 2016 (Lillie,

2017). One such case in Roseville involved 52-year-old John Birkeland, who was having a mental health crisis that resulted in police being called to his home after he was shouting profanities and breaking glass. Mr. Birkeland was ultimately shot and killed by police officers after he stabbed a police dog during the incident. This case example shows how unpredictable a situation can be, a situation that could be deemed insignificant that ends up resulting in negative consequences for all parties involved.

Another measurement of police contact is jail and prison statistics. Prior to deinstitutionalization in the 1950's, individuals with mental illness were housed in treatment facilities at a rate of three times as high as incarceration. Today these numbers reflect a complete turnaround with the number of individuals with mental illness receiving treatment in a correctional setting at a rate of three times as high as in a hospital setting (Bailey et al., 2018; Crocker et al., 2015). According to data from the Bureau of Justice Statistics (BJS) in 2011-2012, 1 in 7 state and federal inmates, and 1 in 4 jail inmates had self-reported serious mental illness, while 37% of prisoners and 44% of jail inmates self-reported being diagnosed with a mental illness (Bronson & Berzofsky, 2017). In the United States, prison and jail facilities house individuals with serious mental illness at a rate three times higher than psychiatric facilities (Campbell et al., 2017). Individuals who meet the standard for severe psychological distress (14%) within the prison population are nearly three times as high, and the jail population (26%) is over five times as high as the general U.S. population (5%). This is also compared to the general U.S. population that had no police contact within the last year (4%) (Bronson & Berzofsky, 2017). As a means of comparison for jail and prison populations versus the

general population, The Bureau of Justice Statistics (BJS) revealed results from a study that 14% of prisoners and 26% of jail inmates met the criteria for serious psychological distress, as compared to 5% of the general population meeting this criteria (Bronson & Berzofsky, 2017).

Recidivism

Recidivism rates among incarcerated offenders with mental illness in jail and prison inmates is also alarming. Treatment that is lacking, delayed, or absent can lead to many difficulties for individuals with mental illness including a higher potential for violence, suicide risk, and an effect on their day-to-day functioning, which can lead to a higher risk of recidivism once they are released (Biswas, 2017; Dlugacz, 2014). One study found recidivism rates during an 18 month period after release as high as two-thirds of the inmates with mental illness returning to jail or being hospitalized (Dlugacz, 2014). A study completed by Baillargeon et al. (2010), also revealed that of 61,000 Texas inmates, those who had been suffering from co-occurring mental health and substance abuse issues had a significantly higher recidivism rate as compared to those who only suffered from mental illness or substance abuse alone. Several individual factors need to be considered when reviewing recidivism rates among previously incarcerated individuals. Factors such as homelessness, psychotic disorders (many have drug induced psychosis), and lack of outpatient psychiatric services. Many offenders who are released have not had any type of psychological evaluation within the last year, and often still struggle with substance abuse issues. All these factors can result in an increase in the chance of re-arrest (Falconer et al., 2017). Researchers have also shown that the presence

of psychotropic drugs, connection with case managers, and access to outpatient mental health services decreases the chance of re-arrest (Falconer et al., 2017). For instance, Falconer et al.'s study revealed a 50% reduction of risk for re-arrest for individuals who received case management services that included assessment, pairing with mental health resources, and follow-up of services. These jail statistics are important factors that show increased police contact with individuals with mental illness as police officers are how the individuals with mental illness end up in correctional facilities.

Police Training

One topic that is associated with police officers and their subsequent interactions with individuals with mental illness is the quality and quantity of their mental health training. This specifically relates to how police officers sufficiently handle calls for service with mentally ill individuals. Compton et al. (2015) found that there are currently over 2,700 police departments across the United States that have implemented Crisis Intervention Team within their departments alone. Past research has shown that certain mental health training programs such as CIT training has decreased number of arrests of mentally ill, use of force, and officer injuries; as well as increased an officer's ability to identify mental illness and connect individuals with mental health services (Ivancevich, 2015). Researchers have also shown that prior to mental health training, police officers often feel ill equipped to handle calls for service involving individuals with mental illness. Researchers have also found that after completing training officers often feel like they have an increase in their knowledge, awareness, and attitude towards the mentally ill

(Ivancevich, 2015). Considering the results of prior research, it is important to consider looking at required mental health training for police departments across the country.

Crisis Intervention Team Training

History. CIT training is a widely known, and most adopted approach to improving relations with police officers and individuals with mental illness. The CIT model first emerged in 1998 in Memphis, Tennessee after an officer involved shooting with a mentally ill individual (Bailey et al., 2018; Campbell et al., 2017; Mulay et al., 2016; Steadman & Morrissette, 2016). Crisis intervention team was formed after a police-involved shooting with an individual with mental illness. Dr. Randolph Dupont of the University of Tennessee and Major Sam Cochran of the Memphis Police Department developed the approach in an attempt to better connect individuals with mental illness with the appropriate resources (Compton et al., 2008). The goal of CIT training was to connect law enforcement with mental health personnel, as well as appropriate and resources for mentally ill individuals (Compton et al., 2008).

Goals and Specifics of Training. The initial goal of CIT training was to decrease the risk of injury for police officer as well as individuals with mental illness, but today's goals also include pairing mentally ill individuals with mental health resources in their communities (Campbell et al., 2017). Another main goal of the development of the CIT was to divert mentally ill individuals from the criminal justice system into a mental health setting (Bailey et al., 2018).

One of the major features of CIT models is to increase safety for police officers and individuals with mental illness by potentially reducing the need for use of force.

Another advantage of the CIT service, they can connect individuals with mental illness with community mental health services as a possible alternative to incarceration on local jails (Ellis, 2014; Jines, 2016). Crisis Intervention Team philosophy also covers several items for improvement in incidents involving mental ill individuals such as, "lessen injuries to law enforcement; lessen injuries to mental health care consumers; reduce the stigma of associated with mental illness; help decriminalize mental illness; and work as a team" (Jines, 2016, p. 1). Along with these features, the CIT training model implements eight elements that are the building block of the program: "(1) partnerships between law enforcement and mental health advocacy; (2) community ownership through dedicated planning, implementing, and networking; (3) law enforcement policies and procedures; (4) recognitions and honors of CIT officers' accomplishments; (5) availability of mental health facilities; (6) basic and advanced training for officers and dispatchers; (7) evaluation and research; and (8) outreach to other communities" (Ellis, 2014, p.11). These models are initiated by 911 dispatchers who are trained to identify incidents that potentially involve an individual with mental illness, and to assign these cases to police officers who are specifically CIT trained (Jines, 2016).

A typical CIT training is 40 hours in length. The training covers the mental illness process, while also accounting for signs and symptoms of both mental illness and substance abuse (Compton et al., 2014; Ellis, 2014). Classroom topics include signs and symptoms of mental illness, risks to self and others, psychotropic medications, involuntary treatment, needs of mental health consumers, cultural sensitivity and mental illness, community perspective, and community resources (Compton et al., 2014;

Cuddeback et al., 2016; Ellis, 2014; Kubiak et al., 2017; Mulay et al., 2016). In addition to these classroom techniques, police officers are trained in specific areas such as de-escalation and enhanced communication techniques, communication with mental health resources, emergency petition writing, various role-playing activities, film vignettes, testimonials from CIT trained officers, as well as mental ill individuals and their families, and field trips to local jails and psychiatric facilities (Ellis, 2014; Jines, 2016). Because ordinary police tactics of authority and strength can escalate an individual with mental illness, CIT training focuses on de-escalation techniques such as lowered voice, backing away from the individual, listening, and speaking calmly (Kubiak et al., 2017).

According to the National Alliance on Mental Illness (NAMI), there are currently over 2700 police departments across the country have incorporated some variation of CIT training (Compton et al., 2014; Jines, 2016; Kubiak et al., 2017). Crisis intervention team training potentially allows for cost saving benefits including the fact that police officers who go through the training are generally not paid an additional fee, and many of the important stakeholders volunteer their time. There is also a potential for a decrease in medical bills associated with law enforcement and mentally ill community member injuries, as well as a potential decrease in litigation fees. Crisis intervention team training has the potential to decrease incarceration rates for this population that is oftentimes accompanied by higher fees associated with medications and costs for increased secured facilities (Jines, 2016). Crisis intervention training has been found to have a positive impact on police officers and their interactions with individuals with mental illnesses.

Effectiveness of CIT Training. There have been various studies that have

explored the effect of CIT training on police officers on various variables. In Compton et al. (2014) study, the researchers looked at the differences between CIT trained and traditionally trained police officers as it related to six different aspects: knowledge about mental illness, attitudes about mental illness and their treatments, an officer confidence in deescalating techniques and ability to refer to mental health services, stigmatizing attitudes toward individuals with mental illness, de-escalation skills, and referral decisions. In this study, 586 police officers were recruited from six different departments across the state of Georgia, and the results showed significant differences between the CIT trained and the non-CIT trained officers in several aspects. Crisis intervention team trained officers scored higher in knowledge, attitudes toward mental illness and treatment, self-efficacy, mental health stigma, de-escalation skills, and decision to refer.

Many studies have shown an increase in police officer knowledge and understanding of mental illness after CIT training (Kubiak et al., 2017; Mulay et al., 2016). For instance, Ellis (2014) found that police officer mental health knowledge, perceptions, and attitudes improved after CIT training (Booth et al., 2017; Mulay et al., 2016). In a study by Kubiak et al. (2017), the researchers showed improved scores in police officers' knowledge of mental illness, de-escalation skills, confidence in handling mental health calls, and the importance of treatment facilities. Hanafi et al., (2008) noted the following changes after CIT training: "police officers reported increased knowledge and awareness of mental illnesses, including an increased ability to recognize symptoms of mental illness and respond appropriately; a reduction in stigmatizing attitudes; greater empathy toward those with mental illness and their caregivers; more patience for those

with mental illness; fewer arrests; and an increase in assisting persons with mental illness to obtain appropriate treatment" (Kubiak et al., 2017; Mulay et al., 2016, p. 375). Morabito et al. (2013) also showed that officers who were CIT trained were less likely to use force as compared to their untrained counterparts (Mulay et al., 2016). Research on CIT training has also shown an increase in referral to treatment versus arrest and an increase in police officer's preparedness for dealing with individuals with mental illness (Cuddeback et al., 2016).

Why Crisis Intervention Team Training May Not Be Implemented. Crisis intervention team was initially developed for larger urban police departments. Smaller rural police departments seem to be at a disadvantage because they simply do not have the manpower and resources to send their officers to the week-long 40-hour training (Cuddeback et al., 2016). This was supported by a study of 23 CIT coordinators in North Carolina in which 82% of respondents reported that the 40-hour training had a significant impact on their department, while 71% reported that if the training was expanded over a couple of months that this may be more feasible for their department. This research is significant considering 85% of police departments in the United States have a force that is fifty officers or less (Cuddeback et al., 2016).

In Compton et al.'s study (2015), per the 171 chiefs and sheriffs surveyed in Georgia revealed that the reason CIT training has not been fully implemented is due to high cost, officers not being able to take a week off for training, lack of community resources available, and man power. Police officers often receive little mental health training even though officers see the importance of this training and would like more

training (Compton et al., 2014). These factors show that there may be a great need for additional training, but also many reasons why trainings are not incorporated into departments.

Formal Training

Several other trainings have been developed to improve interactions with police officers and those with mental illness. Pinfold et al. (2003) found that an educational course on mental illness helped improve police officer knowledge and approximately half of the officers reported a more positive attitude toward individuals with mental illness (Mulay et al., 2016). In Krameddine et al.'s study (2013), 663 officers completed a one-day training in which they participated in role-playing with actors who portrayed six real life scenarios while the officers only received information they would have in a call for service. The main goal of this training was to focus on changing officers' behavior by improving de-escalation skills and communication skills rather than increasing knowledge or changing an officer's attitude. This study revealed an improvement in officer behavior based upon the goals of the training even 6 months after the initial training. This study shows the impact of role-play training as well as the importance of behavioral changes even when changes in attitude and knowledge are not present.

In Krameddine and Silverstone's (2015) study, the researchers incorporated a mental health training program that is one day long and focuses on six different hands-on scenarios in which police officers are getting constant feedback on each scenario. Six hundred and fifty officers completed this program with positive outcomes even after 6 months, including better communication, de-escalation approaches, empathy, an increase

of 40% in mental health calls that were recorded showing improvement in the officers' ability to recognize these situations, and a 23% increase in office confidence when handling these calls for service (Krameddine & Silverstone, 2015). This is important to note because it shows that mental health training, no matter the length of training, can have an impact on police officers' interactions with individuals with mental illness.

Police Perceptions

Contact With Individuals With Mental Illness

Popular culture has put emphasis on certain aspects of policing including crime fighting and apprehending criminals; however, in reality this is a small piece of the day-to-day activities of an officer's role, with current trends focused on police involvement in social issues (Cummins & Edmondson, 2016). Police officers are often referred to as gatekeepers for individuals with mental illness and the criminal justice system, as they ultimately decide whether an individual goes to jail or is referred to a mental health facility (Compton et al., 2014). In roughly 10% of police calls for service, police interact with an individual with mental illness; police officers also account for nearly one-third of emergency room mental health referrals (Compton et al., 2014).

Individuals with mental illness can come into contact with police in various roles including victim, suspect, suicidal ideation, or transport for psychiatric evaluation (Liegghio & Jaswal, 2015). The decision to arrest an individual with mental illness or refer to a mental health resource can be determined by the police officer's personal attitudes and beliefs on mental illness as well as the police culture itself (Noga et al., 2016). Research has shown that when officers come in to contact with mentally ill

individuals, police tend to have a suspicion of dangerousness and stigma towards these individuals. In a study conducted by Watson, Corrigan, and Ottati (2004) police officers who were presented with a vignette involving an individual with schizophrenia felt the need to help, but also were more likely to perceive this individual as dangerous (Mulay et al., 2016). Another study by Psarra et al., (2008) found that officers in Greece believed that individuals with mental illness were more dangerous as compared to the general population (Mulay et al., 2016). It should be noted that these perceptions and suspicions of dangerousness on behalf of police officers can be shown for good cause. Situations with individuals with mental illness can turn violent, and police officers report that some of their most dangerous calls have been these individuals. Kulbarsh (2016) reports that individuals with mental illness who are experiencing psychosis can be unpredictable, may not fully understand and therefore comply with police officers' directives, may try to flee or fight, and those who are not receiving treatment can be violent. Of further importance, in 2014 127 officers were killed in the line of duty, six of these officers (or 15%) were killed by suspects who were mentally ill. These statistics and studies show the importance of additional mental health training and tools for police officers who encounter individuals with mental illness to improve interactions between these two groups.

Additional Factors

One additional factor that plays a role in police perceptions of individuals with mental illness is the increased amount of time spent on calls with these individuals, with police chiefs reporting that this time constraint takes away from valuable police resources

(Livingston, 2016). Police officers report that individuals suffering from mental illness do not respond well to ordinary police tactics, and this also leads to additional time spent on these particular calls for service (Watson & Angell, 2013). Time spent within hospitals waiting for an evaluation to be completed can attribute to this increase (Hoffman et al., 2016). Several factors play a role in the transferring of mental health patients to a hospital setting including additional wait time for the police officer, concerns about the emergency departments' ability to accurately triage a mental health issue, the relationship between the emergency department staff and the police officer, and the potential for repeat trips to the emergency department with the same individual (Hoffman et al., 2016). When it comes to potential adverse relationship of the police officer and the staff at the emergency room the most common factor are the differences in goals and job duties. For a police officer, the visit is to focus on public and personal safety so that the individual is not a harm to themselves or others. For emergency room staff, the goal is to assess the patient as well as determine how long a patient will be safe before seeing the doctor (Hoffman et al., 2016). The focus for police officers tends to air on the side of public safety and level of dangerousness when dealing with individuals with mental illness (Hoffman et al., 2016). All these factors are important in understanding the relationships between police officers and those suffering mental illness.

Summary of Literature Review

In recent years it has become apparent that mental health training for police officers has become increasingly important. This training should address the officers' day to day interactions with mentally ill individuals within their communities. Due to

deinstitutionalization and the aftermath of improper incorporation of community resources available to those being released from state run facilities, more individuals are treating their illness in their communities. The increase in individuals with mental illness in their communities has also accounted for an influx in police calls for service. Local law enforcement agencies have been overwhelmed with this increase in calls for service to address issues with the mentally ill. This literature review focused on deinstitutionalization, the theoretical framework surrounding this study, factors that affect mentally ill individuals, impact of mental ills calls on the criminal justice system, police training, and police perceptions.

Chapter 3: Research Method

Introduction

I conducted a quantitative quasi-experimental study to measure the effects of formal and informal mental health training on police officers' perceptions of individuals with mental illness, while also accounting for any differences in whether these trainings were voluntary. Training differences were broken down into the number of hours completed with 0-16 hours accounting for informal training, 17-39 hours completed reflecting formal training, and the CIT model. The purpose of this study was to determine what differences exist in a police officers' number of mental health hours and their subsequent perceptions of individuals with mental illness. The purpose was also to determine any differences between officers who volunteered for mental health training versus those who did not volunteer. The results of this study contribute to the existing research on the effectiveness of mental health training for police officers and how implementing additional training may affect police officer perceptions of individuals with mental illness.

Previous research has focused on the effectiveness of mental health training in terms of various variables on a police officer after completing training (Bonfine et al., 2014; Campbell et al., 2017; Compton et al., 2014; Cuddeback et al., 2016; Ellis, 2014; Helfgott et al., 2016; Hoffman et al., 2016; Kubiak et al., 2017; Mulay et al. 2016; Tomar et al., 2017). None of these previous studies have focused on differences between CIT training and formal/informal mental health training effectiveness on police officers. Past

research has also not considered differences in police officers who had volunteered versus those who were mandated.

In this chapter, the quantitative methodology and research design will be reviewed. The rationale behind the research design and how it relates to the research questions, as well as any time and resource constraints, will be discussed. Chapter three will also define the target population and how the target population size was determined. Sampling and sampling strategies including type, sampling frame, and how power analysis was utilized to determine sampling size will also be addressed in this chapter. This chapter will also cover recruiting procedures, explanation of data collection and instrumentation, and operationalization of variables. I will explain the use of ANOVA and independent t-test to interpret the data that is collected, and how data will be analyzed with the assistance of IBM SPSS. Finally, this chapter will address threats to validity, ethical considerations, and a summary of the information provided.

Research Design and Rationale

In this study, I examined the impact of various levels of mental health training on a police officers' perceptions of individuals with mental illness. The dependent variables were police officer's attitudes, knowledge of mental health, and level of confidence in dealing with an individual with mental illness. The independent variable was the hours of mental health training (CIT training, informal, and formal) completed by police officers. CIT was developed in 1988 to improve relations between police officers and individuals with mental illness (Compton et al., 2015). This 40-hour volunteer training is conducted by mental health advocates, police officer trainers, family members of those

with mental illness, and community partners (Compton et al., 2014; Mulay et al., 2016). CIT training focuses on increasing knowledge of mental health, de-escalation and crisis intervention skills, knowledge of and side effects of pharmacological interventions, and available mental health community resources (Compton et al., 2014; Compton et al., 2015; Mulay et al., 2016; Steadman & Morrissette, 2016). Formal training in this study was defined as 17-39 hours of mental health training, and informal training is defined as 0-16 hours of mental health training.

I only recruited licensed police officers within the state of Minnesota. As of July 2018, Minnesota legislation requires all police officers to complete at least 16 hours of in-service training in the following areas, "crisis intervention and mental illness crises, conflict management and meditation, and recognizing and valuing community diversity and cultural differences to include implicit bias training" (The Office of the Revisor of Statutes, 2016). This training is now a requirement of Minnesota police officers' licensing procedures, which occur every 3 years. Any officer who had their licensing period after June 30th, 2018, is required to meet this standard during their next licensing period (The Office of the Revisor of Statutes, 2016). This means that some officers will not have completed this requirement yet, as well as those officers who may have waited until their deadline to complete these training hours. Due to the new legislation with these mental health training parameters, this study focused on what differences exist between officers who receive informal, formal, and CIT training; as well as whether the officers volunteered for the hours of training they have completed.

The current study was quantitative in nature. The goal of the study was to compare police officers' perceptions of individuals with mental illness with varying amount of training hours. The study also compared police officers that volunteered for mental health training versus those who had not. A quantitative method was the better approach because the goal was to compare groups in terms of a cause (Creswell, 2014). A quasi-experimental contrasted-groups design was used because participants were categorized and compared based on those who volunteered, those who did not, and the three levels of mental health training (Sarsfield & Garson, 2018). The contrasted-groups design allows for a researcher to place participants in specific groups based on an identifier that links these participants with like individuals (Frankfort-Nachmias & Nachmias, 2008). This research design gave me an opportunity to compare officers who were introduced to the independent variable (mental health training) and level of training (CIT, formal, and informal), while also having the ability to account for whether the officer volunteered for the training.

A quantitative approach allows for data collection for inferences to be drawn from a sample population to a larger population with like demographics (Creswell, 2014). This design has a quick turnaround time for data collection and provides a less expensive approach (Creswell, 2014). This saved in terms of both time and available resources. A quantitative approach also allows for data collection to be collected in a more timely fashion than a qualitative or mixed-methods approach.

Methodology

Population of the Study

The target population for this study was licensed police officers in Minnesota. Statistics from 2019 indicated that there are currently 10,940 licensed police officers working for 427 police departments within the state of Minnesota, with department sizes ranging from 1 officer to 901 officers (Minnesota Board of Peace Officer Standards and Training, 2019).

Sampling and Sampling Procedures

I contacted police departments in the state of Minnesota. I received the most current list of police departments from the Minnesota Board of Peace Officer Standards and Training. Given that this list is only updated once per year, confirmation of numbers of police officers within the departments were confirmed with the police chief or sheriff. Once participating departments were identified, I only included officers who were regularly on patrol, and who had the most opportunity to interact with individuals with mental illness. Officers who are assigned to specialized units such as investigations or narcotics, administrative officers, officers who are currently on light duty due to an injury, and any other officers not available for routine calls were excluded from this study. The survey was completely anonymous and completed surveys were assigned an ID number that I created.

A power analysis using G*Power 3.1.9.2 was used to determine the appropriate sample size required to produce statistically significant results for this study. The effect size f was set to equal .25, the alpha (α err prob) was set to equal .05, power was set to

equal.80, and number of groups for this study was three. The power analysis revealed a total sample size of 159 participants based on an ANOVA: fixed effects, omnibus, one-way test.

Procedures for Recruitment and Participation

I contacted police sheriffs and chiefs for permission to advertise for participants for this study. After the chief or sheriff provided their permission, I asked that my flyer be sent out to all officers in their department through a mass email. These flyers were delivered via department issued emails, and provided details of the specifics of the study, requested participation, and included the link to the survey. This approach helped with confidentiality issues as officers will remain anonymous upon returning these surveys. I also reached out to the Minnesota CIT organization to ask for permission to attend relevant trainings to post advertising of this study or for the organization to send out a mass email with the flyer information. The goal onsite was to have a larger flyer present, with the intention of having the officers approach me if they were interested in participating in the study. If they were interested in participating, the officers were given the link to the online survey. This approach allowed for any face-to-face explanations of my study and discussing interest in participation. I used a snowball sampling technique in order to recruit additional officers from my initial pool of participants.

I planned to continue to sample participants until sample sizes were relatively equal and I reached at least 159 participants. Without this approach, I would potentially run into internal validity issues with uneven samples sizes for each of my three groups (CIT, formal, and informal training). Certain demographic information was collected

during this study including age, race, gender, years of service, if the officer has any personal experience with individuals with mental illness outside of their employment, past mental health training, how many days within the last month the officer has responded to call involving an individual with mental illness, and educational level.

All participation was voluntary, with implied consent information delivered via the first page of the survey. The acceptance of the implied consent was in the completion of the survey as the officer needed to first read the consent form before proceeding to the survey itself. Since this was a completely anonymous survey, acceptance of implied consent was recorded by the return of the survey itself. It should be noted that there were no follow-up procedures for this study as there was only be the survey itself. A summary of the results was sent to the chief or sheriff of the participating departments. Depending on the results of the study, this may be important data that could be helpful with grant writing for police departments and provide interest in this study, especially with new legislation in Minnesota police officer training requirements.

Data Collection Procedures

Data was collected via Survey Monkey and using the MHASP. The survey first presented the informed consent and if the officer clicks continue this will imply their consent since this is a completely anonymous study. I continued to collect data until I reached 159 participants and had relatively equal sample sizes. Disrupting the departments and/or trainings as little as possible was a priority. As such, the main course of communication was via department issued email through the department's chief or sheriff with the idea that the survey could be completed when it was convenient for the

officer. I also approached training leaders to ask if they would either send out a mass email of the study flyer or allow me to attend some of the trainings and stand at a table to advertise for this study If the response rate was low, I would have also been available to be present during shift changes and before and after trainings to explain the survey and the benefits of participating. Once data collection was complete, I transferred data into IBM SPSS software, Version 26 for analysis.

Instrumentation

Mental Health Attitude Survey for Police. The Mental Health Attitude Survey for Police (See Appendix A) was developed in 2011 by Jonathan Clayfield, Kenneth Fletcher, and Albert Grudzinskas. This tool was created to measure the effectiveness of mental health training for police officers as calculated by improvements in attitudes toward individuals with mental illness. The MHASP originally consisted of 37 items, with a majority of the items (26) being derived from the Community Attitudes Toward the Mentally Ill (CAMI) scale. These 26 items focused around four main areas: authoritarianism, benevolence, social restrictiveness, community mental health ideology. An additional six items came from Cotton's (2004) focus on police views of individuals with mental illness in their communities and their position within their respective departments. Finally, three items were created by the authors and focused on police officer perception of their knowledge of mental health, how confident they were in handling calls with individuals with mental illness, and perception of how well they believe they are trained to handle these calls for service (Clayfield et al., 2011). Based on the results of the validation testing, the survey ended up with 33 items, after three items

were dropped as they did not load, and 1 item was covered by two factors. These 33 items are measured on a 6-point Likert-type scale ranging from Strongly Agree to Strongly Disagree.

The Mental Health Attitude Survey for Police was initially validated in 2008 with a sample of 412 police officers, with 379 completing all 37 items. The MHASP is a valid measurement of police officers' attitudes toward individuals with mental illness as evidenced by scores of the adjusted Cronbach's alpha ranging from 0.753 to 0.890 across the items of the subscales of the measurement. Thirty items from the survey were selected to represent the MHASP total score, with Cronbach's raw alpha score being 0.872 with an adjusted alpha score of 0.871 (Clayfield et al., 2011). Based on these scores, the MHASP shows to be a reliable measurement of police attitudes toward individuals with mental illness. Since the goal of this current study was to look at police officer perceptions of individuals with mental illness after exposure to various mental health trainings, the MHASP was a good tool to help measure these perceptions changes as well as the officer's confidence level, knowledge of mental illness, and officer perception of sufficient training. Several studies have utilized the MHASP for their instrumentation focusing on police officers, including Cuddeback et al. (2016), Henshaw and Thomas (2012), Godfredson et al. (2010). Written permission to use the MHASP for this study was obtained (See Appendix B).

Operationalization of Constructs

Informal Training. Informal training, for this study, was defined as any police officer training that is not specifically mental health focused but does include some

aspects of this subject. This was further defined as training hours between 0 to 16 hours completed. These parameters were selected due to police officer training requirements in the State of Minnesota. As of July 2018, all police officers within the State of Minnesota are required to complete at least 16 hours of mental health trainings every three years (The Office of the Revisor of Statutes, 2016).

Formal Training. Police training that is specifically targeted at expanding police officer knowledge and techniques for dealing with individuals with mental illness. This was defined as at least 17 hours of mental health training, but less than 40 hours.

Crisis Intervention Team. Police training that was designed to, "enhance police officers' interactions with individuals with mental illness and improve the safety of all parties involved in mental health crisis" (Ellis, 2014, p. 11). CIT training is a mental health training that was developed in 1988 in Memphis Tennessee to help improve police officers' relations with individuals with mental illness. This training is a 40-hour training aimed at increasing an officer's knowledge of mental health and skills so that the officer is better equipped to handle situations with individuals with mental illness (Clayfield et al., 2011).

Police Officer Attitudes. Attitude incorporates an individual's values and beliefs that can have a significant impact on a person's behavior (Clayfield et al., 2011). Other factors that can have an impact on a person's attitude include any prejudicial, stigma, or misinformation about the group being considered (Clayfield et al., 2011). In this study, a police officer's attitude specifically focused on individuals with mental illness, and the definition was defined by Clayfield et al. (2011) as this was the instrumentation

definition. An example item included in factor I is, "Responding to calls involving emotionally disturbed persons is not really part of a police officers' role" (Clayfield et al., 2011). An example item included in factor II is, "Dealing with emotionally disturbed persons should be an integral part of community policing" (Clayfield et al., 2011). An example item included in factor IV is, "Emotionally disturbed persons should be isolated from the rest of the community" (Clayfield et al., 2011).

Police officer attitudes were measured using the MHASP. The MHASP is divided into four separate factors: Factor I, Positive Attitude Toward EDPs; Factor II, Negative Attitude Toward Community Responsibility for EDPs; Factor III, Inadequately Prepared to Deal with EDPs; and Factor IV, Positive Attitude Toward EDPs Living in the Community (Clayfield et al., 2011). The total score is calculated by coding the factor items, while also reverse coding the Factor III items. Total scores reveal police officer attitudes toward individual with mental illness, with higher scores indicating a more positive attitude toward those with mental illness and lower total scores indicating a more negative attitude toward those with mental illness.

Research Questions

RQ1: Are there significant differences in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after they have completed informal (under 16 hours), formal (16-40 hours), and CIT training?

$H_0$1: There is no difference in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals

with mental illness after completion of informal (under 16 hours), formal (16-40 hours), and CIT training?

H_A1: There is a difference in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after completion of informal (under 16 hours), formal (16-40 hours), and CIT training?

RQ2: Are there significant differences in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training?

$H_0 2$: There is no difference in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training.

$H_A 2$: There is a difference in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training.

Data Analysis Plan

All data that were collected for this study was input into IBM SPSS software, version 26 for analysis. The best approach for data analysis of the first research question, examining whether there are significant differences in police officers' perceptions depending on their level of mental health training was Analysis of Variance (ANOVA). An ANOVA provides the ability to test for differences in participants in more than two groups (Field, 2013). For this study, the goal was to look at three different groups

(police officers exposed to informal training, police officers exposed to formal training, and police officers who completed CIT training) while accounting for any differences in the dependent variable (police attitudes).

The best approach for data analysis for the second research questions, examining whether there are significant differences in police officers' perceptions depending on their voluntariness of mental health training, was an independent-samples *t*-test, which will allowed for comparison of two groups in which participants in each group are exposed to different aspects (officers who volunteered for mental health training and officers who were mandated to mental health training) (Field, 2013).

Threats to Validity

Threats to External Validity

External validity issues arise when a researcher incorrectly associates their population data to other individuals, settings, or future conditions (Creswell, 2014). This occurs due to the features of the participants, a distinct setting, and the timing of the study (Creswell, 2014). External validity concerns of this study include the characteristics of the study, generalizability of the study, and time.

The first area of concern focuses around the characteristics of the participants. The characteristics of the participants in this study are police officers and their respective completed amount of mental health training hours. Because this study solely focuses on this population, inferences will not be discussed as it relates to other similar populations such as firefighters or emergency management technicians. To address populations outside of police officers, one would need to conduct additional research at a later time.

Also relating to the selection of participants was whether the police officer volunteered for the mental health training or if this was a mandatory training. This potential threat was addressed as the officers were specifically asked whether they volunteered as part of this survey. Since the State of Minnesota implemented mandatory 16 hours of mental health training for police officers by 2021, it was important to catch the police officers who received informal training before this deadline approaches.

The second area of concern dealt with the researcher having the ability to generalize the data in their study to another setting (Creswell, 2014). In this study, various mental health trainings and deliveries of these trainings were measured. The data reflected any differences that arose between informal, formal, and CIT trainings across the State of Minnesota. This study did not take into account the fact that the trainings were taught by different instructors, in different locations, with different materials, and with different objectives.

Finally, time plays an important role in potential threats to external validity. One cannot generalize results of their study to past or future data, the only way of looking at different time periods is to duplicate the researcher's study (Creswell, 2014). The period associated with this study will be completed mental health trainings July 1, 2018 through January 1, 2021. By setting this time limit, one was not able to generalize results before or after these parameters.

Threats to Internal Validity

Threats in internal validity included components that were associated with experiences of the participants, and the study procedures and treatments that may have

had an impact on the researcher's ability to draw inferences from the study itself (Creswell, 2014). Internal validity concerns can involve those relating to the participants, those involving the use of the experimental design, and those involving the procedures of the study (Creswell, 2014). The main internal validity concerns for this study focused on the participants of the study and the procedures of the study.

One internal validity concern area was mortality, defined as participants who drop out of the study thus leaving their results unknown (Creswell, 2014). One way of preparing for the mortality issue was to recruit a larger number of participants. One hundred fifty-nine participants were required for this study to satisfy a medium effect size. To account for potential mortality concerns, the goal was to recruit 200 participants knowing that some participants may end the survey early or leave questions unanswered.

Another internal concern was with the instrumentation itself, in that some studies use different instruments at different phases of a study (Creswell, 2014). This study only covered post-mental health training for officers and only utilized the MHASP, thus eliminating any instrumentation concerns as this measure was found to be valid measure of police perceptions (Clayfield et al., 2011).

Ethical Considerations

This study was first sent to the Walden University Institutional Review Board (IRB). The purpose of the IRB is to ensure that all federal regulations for human rights protections are adhered to, as well as to determine the risk associated with the study. There are several areas of risk to consider for human participants including, "physical, social, economic, or legal harm" (Creswell, 2014). I received IRB approval on February

21, 2020 (number 02-21-20-0393242). Necessary permissions were also obtained before the start of data collection. Permission was sought from various sheriffs and/or chiefs of different departments as well as the leaders of the trainings to seek access to police officers within that specified department via email, telephone call, or in-person.

Before the participant participated in the study, they were required to read the informed consent form. The implied consent form contains all pertinent information so that the participants of this study knew ahead of time the specifics of the study before they agreed to participate. The information contained in the consent form include: the purpose of the study, the benefits of the study, any associated risks of the study, acknowledgement that the participant can withdraw at any time, and that survey is completely anonymous. Since this survey was completely anonymous, the participants' consent was implied by them clicking the OK or continue button at the bottom of the informed consent to continue to the survey. Care was also taken to ensure that participants were not deceived in any manner as well as collecting any data that may be harmful by fully explaining the purpose and benefits of the study.

During data analysis, each completed survey was given an identification number. No names or other identifying information was collected. This kept the participants completely anonymous. Attention also focused on presenting the full scope of the results versus only reporting those that are seen as a positive to the study while also not releasing any information that may be harmful to the participant. Individual results were not shared, only an overall summary of the data. Raw data and associated materials were

stored and will be saved for a minimum of 5 years per the American Psychological Association.

Summary

Chapter 3 provided background information on the research design of this study. It discussed why a quantitative study was the best fit for the research questions surrounding the differences between completion of informal, formal, and CIT training on a police officer's perception of individuals with mental illness. This chapter also focused on the methodology of the study including sampling and sampling procedures, recruitment procedures, use of the MHASP, and the data analysis plan. Chapter 3 also addressed any internal and external validity issues that may arise, as well as ethical concerns and procedures for human participants. Chapter 4 will provide a detailed look at the results of the study including demographic information of the participants.

Chapter 4: Results

Introduction

In this study I measured the effects of formal and informal mental health training on police officers' perceptions of individuals with mental illness within various departments in the state of Minnesota. I also explored whether there was a difference between officers who volunteered for the training and those who did not. Data were collected through online surveys via SurveyMonkey. Participants included both administrative and patrol officers. The dependent variables were police officers' attitudes, knowledge of mental health, and level of confidence in dealing with an individual with mental illness. The independent variable was the hours of mental health training (Crisis Intervention Team, informal, and formal) completed by police officers.

The research questions and hypotheses for this study were as follows:

RQ1: Are there significant differences in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after they have completed informal (under 16 hours), formal (16-40 hours), and CIT training?

$H_0$1: There is no difference in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after completion of informal (under 16 hours), formal (16-40 hours), and CIT training?

H_A1: There is a difference in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with

mental illness after completion of informal (under 16 hours), formal (16-40 hours), and CIT training?

RQ2: Are there significant differences in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training?

$H_0$2: There is no difference in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training.

H_A2: There is a difference in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training.

This chapter will outline the data collection procedures including the timelines associated with the collection, as well as any differences from the plan laid out in Chapter 3. I will review the demographics of the participants of this study, and account how this data can be attributed to the general population. Finally, I will be reviewing the data of this study, including assumptions of the tests that were run. This chapter will also include statistical figures to help visualize the results of the study.

Data Collection

I received IRB approval on February 21, 2020 (number 02-21-20-0393242). I began data collection by obtaining a list of licensed police officers by department, including size of department, from the Minnesota Peace Officer Standards and Training Board website. The list that I pulled included statistics from February 2020 and included

11,084 licensed police officers working for 422 law enforcement agencies in Minnesota. Also included on the Minnesota Peace Officer Standards and Training Board website was a listing of each agency that included contact information for each agency including address and phone number for each. I wanted to make sure that I was reaching the correct sheriff/chief of police for each agency, so I decided to research the individual departments to try to track down an email listing for each sheriff/chief. The reason that I thought that this was important was because I wanted to be able to directly send my survey via email if the sheriff/chief was interested, rather than risk loss of interest through back and forth communication before being able to send the survey.

I began sending out my letter of interest to sheriffs and chiefs of departments with 50 or more officers in early March 2020. I continued this process, incorporating smaller department outreach through the end of May 2020. At this point, my survey had been sent to over 1,000 licensed officers from departments ranging from 11 to 604 officers. My initial target goal was 159 surveys completed. I also wanted my three independent variable groups (0-16 hours, 17-39 hours, and CIT and above) to be somewhat even in numbers. I had 145 surveys attempted and 130 completed when I discontinued my data collection. The sample selection was completed on May 12, 2020.

There were a couple of reasons that I decided to end my data collection before my target number was reached. The first was COVID-19 related, as many departments seemed to have had their hands full learning the new normal and what their day-to-day operations looked like with the pandemic. The second factor was the shooting death of George Floyd, that occurred in Minneapolis on May 25th, 2020. Following this incident

there were several events that took place including massive riots throughout the country, a Black Lives Matter movement, and multiple large protests throughout the country. Because of these incidents it seemed all officers were now put under the spotlight and trying to figure out, again, what their day-to-day operations would look like. After this incident I also stopped getting responses from potential participants. With this being said, I wasn't sure that I could get true answers from my participants after the May 25th, 2020 incident as many things have changed since this occurred. I consulted with my committee and they agreed that the incident may have a large effect on any further participation by officers and agreed to end data collection.

Discrepancies from Chapter 3 in the data collection process included having the sample size set at 130 rather than the intended 159. Another discrepancy from Chapter 3 was using surveys that were completed by self-identified administrators and investigators/detectives. Originally the instruction was for the collection of surveys from routine patrol officers only, as these officers would have the most interactions with individuals with mental illness. When the data was cleaned, it was discovered that 43 administrators/investigators/detectives had completed the surveys, which would have left a smaller sample size of 87. Since this group started their careers as routine patrol officers, it was decided to include them. I then decided to run a t-test to determine any differences between administrators with a random sample of patrol officers.

Results

Demographic Information

Of the 129 police officers who revealed their sex in this sample, 87% were men and 13% were women as shown in Table 1. When comparing this sample size to the demographics of sheriff's office officers in 2016 (14% were women, and 86% were men) and local law enforcement agency officers (12% were women and 88% were men) these numbers are comparative (Brooks, 2019; Hyland & Davis, 2019). When looking at the race and ethnicity of the sample, 93% were White/Caucasian, 2% were African American, 1% were Native American/Alaskan American, and 4% self-identified as other as shown in Table 2. Comparing this sample to the race and ethnicity demographics of sheriff's office officers in the United States (76% White/Caucasian, 9% African American, 11% Hispanic, 2% other, and 2% Unknown) and local law enforcement officers in the United States (72% White/Caucasian, 11% African American, 13% Hispanic, 4% other, and 1% unknown), this sample does have a higher percentage of White/Caucasian as compared to the national average (Brooks, 2019; Hyland & Davis, 2019). When looking at the highest level of education among the sample participants, 31.5% completed some college/special training, 55.4% hold a bachelor's degree, and 13.1% hold a master's degree or higher as shown in Table 3. Of the 115 police officers in this sample that revealed their age, the youngest officer was 22 while the oldest was 62, and the average age 39.94 as shown in Table 4. Of the 122 officers that revealed how many years of law enforcement experience they have the average was 15.41 years, with a minimum of one year and a maximum of 40 years as shown in Table 5. Of the 127

officers that revealed how many days per week in the last month they have responded to an EDP call the average was three days, with a minimum of one day and a maximum of six days as shown in Table 6.

Table 1

Participants' Gender

Officer gender	Total	%
Male	112	87
Female	17	13

Table 2

Participants' Race/Ethnicity

Officer race/ethnicity	Total	%
White/Caucasian	116	93
African American	3	2
Native American/Alaskan Native	1	1
Other	5	4

Table 3

Participants' Level of Education

Highest level of education	Total	%
Some college/special Training	41	31.5
Bachelor's degree	72	55.4
Master's degree or higher	17	13.1

Table 4

Participants' Ages

Officer age	Minimum	Maximum	Mean
	22	62	39.94

Table 5

Participants' Years of Service

Years of service	Minimum	Maximum	Mean
	1	40	15.41

Table 6

Days in the past month responding to EDP call

Days per week responding to EDP calls	Minimum	Maximum	Mean
	1	6	3

Statistical Assumptions

There are four assumptions for the analysis of variance (ANOVA): (a) observations of the dependent variable are independent, (b) assumption of scale of measurement, (c) homogeneity of variance, and (d) are normally distributed (Field, 2013). The dependent variables in this study were police officer's attitudes, knowledge of mental health, and level of confidence in dealing with an individual with mental illness. Each returned survey was completed by a single officer, thus making each response independent of another. Every returned survey was calculated using the sum of

the scores to determine the total MHASP score for each officer individually. With the scale of measurement assumption, the current study uses a scale for the dependent variable measurement, thus because the variable is not nominal or ordinal, this assumption has been met. When looking at whether the dependent variables were normally distributed, I ran skewness and kurtosis to see if my values were between 1 and -1. As Table 7 shows, skewness was -.12 and kurtosis was .26, both falling between the parameters of 1 and -1. A visual representation can also be seen in the histogram in Figure 1, showing that the normal distribution assumption was met. Finally, in Table 8, homogeneity of variance was tested and met by Levene's F test, $F(124) = 1.02$, $p = .389$.

Table 7

Skewness and Kurtosis Statistics

MHASP Total	Valid	Skewness	Std. error of skewness	Kurtosis	Std. error of kurtosis
	128	-.124	.214	.261	.425

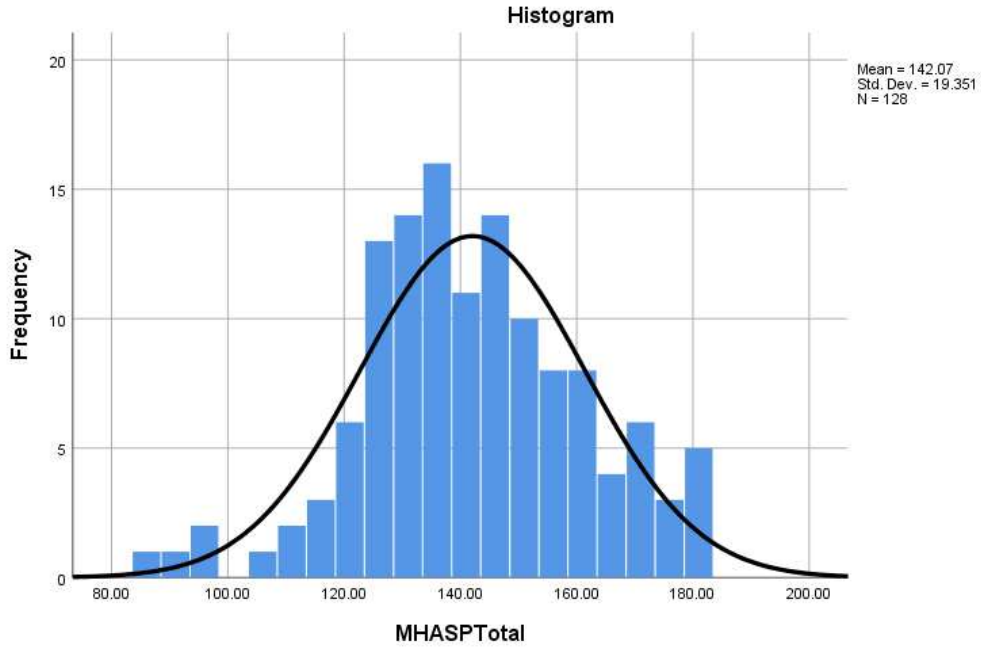

Figure 1. MHASP total frequency.

Table 8

Homogeneity of Variance

MHASP total	Levene statistic	df	Sig.
	1.015	124	.389

I also made sure that there were no outliers in the data that were collected. I ran frequency analyses to determine if there were any outliers that needed to be explored. No outliers were identified. Specifically looking at the MHASP total scores for the sample the minimum score was 86, the maximum was 183, and the mean was 142.07.

Results for Research Question 1

RQ1: Are there significant differences in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after they have completed informal (under 16 hours), formal (16-40 hours), and CIT training?

$H_0$1: There is no difference in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after completion of informal (under 16 hours), formal (16-40 hours), and CIT training?

H_A1: There is a difference in police officer attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness after completion of informal (under 16 hours), formal (16-40 hours), and CIT training?

A one-way ANOVA was conducted to determine if there were statistically significant mean differences between officers that receive informal training (under 16 hours), formal training (16-39 hours) and CIT training or higher (40 plus hours). There were not any significant differences between the three groups (F (2, 125) = .937, p= .395) as shown in Table 9. Thus, the alternative hypothesis is rejected. In this study, the MHASP showed that there is not an association between police officer attitude and number of hours of mental health training.

Table 9

ANOVA Research Question 1

MHASPTotal					
	Sum of squares	df	Mean square	F	Sig.
Between Groups	702.451	2	351.225	.937	.395
Within Groups	46855.917	125	374.847		
Total	47558.367	127			

Results for Research Question 2

RQ2: Are there significant differences in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training?

$H_0$2: There is no difference in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training.

H_A2: There is a difference in the perceptions of police officers who volunteered for formal or informal mental health training and those who did not volunteer for additional formal or informal mental health training.

An independent *t*-test was conducted to determine if there were statistically significant mean differences between officers that volunteered for mental health training and those who were mandated. Descriptive statistics are shown in Table 10. This table shows that 82 participants volunteered for their training and 46 participants completed mandatory training. Results of Levene's test for equality and the independent *t*-test are shown in Table 11. Homogeneity of variance was tested and met by Levene's *F* test,

$F(126) = 3.6$, $p = .060$. Results of the independent *t*-test showed that the mean differences between police officers who volunteered for mental health training and those that were mandated were significantly different $t(126) = -2.03$, $p = .044$ as shown in Table 11. Thus, the null hypothesis is rejected.

Table 10

Descriptive Statistics for Voluntary/Mandatory Training

Group statistics					
	Mental health training mandatory or voluntary?	N	Mean	Std. deviation	Std. error mean
MHASP total	Voluntary	82	139.5000	17.31213	1.91181
	Mandatory	46	146.6522	21.99719	3.24331

Table 11

Levene's Test for Equality/Independent Samples Test

		Leven's test for equality					95% Confidence interval of the difference	
		F	Sig.	*t*	df	*p*	Lower	Upper
MHASP total	Equal variances assumed	3.6	.06	–2.03	126	.044	–14.121	–.18282

Results for *t*-Test for Patrol Versus Nonpatrol Officers

An additional independent *t*-test was conducted to determine if there were statistically significant mean differences between routine police officers' attitudes, knowledge of mental health, and level of confidence when dealing with a mentally ill individual after completion of informal (under 16 hours), formal (16-39 hours), and CIT training and administrative police officers. Descriptive statistics are shown in Table 12.

There were initially 43 administrative officers, so I decided to randomly select 40 administrative and 40 patrol officers to run this analysis. Results of Levene's test for equality and the independent *t*-test are shown in Table 13. Homogeneity of variance was tested and met by Levene's *F* test, $F(78) = .60$, $p = .441$. Results of the independent *t*-test showed that the mean differences between patrol officers and non-patrol officers were not significantly different $t(78) = -0.71$, $p = .481$) as shown in Table 13. Thus, the alternative hypothesis is rejected.

Table 12

Descriptive Statistics for Patrol/Nonpatrol Officers

Group Statistics					
	Primary police duty (e.g., patrol, supervisory, administrative, etc.):	N	Mean	*SD*	*SE* mean
MHASP Total	Patrol	40	141.1750	19.46843	3.07823
	Nonpatrol	40	144.5000	22.41794	3.54459

Table 1

Levene's Test for Equality/Independent Samples Test

		Leven's test for equality					95% Confidence interval of the difference	
		F	Sig.	*t*	df	*p*	Lower	Upper
MHASP Total	Equal variances assumed	.60	.441	–7.08	78	.481	–12.671	6.02130

Summary

In this chapter, I reviewed the details of this study by providing a review of the research questions and hypotheses and data collection procedures. I also looked at the

discrepancies from Chapter 3 that included a lower response rate due to COVID-19 and nationwide events, as well as the addition of analyzing patrol versus non-patrol officers due to surveys being completed by non-patrol officers. Finally, I provided the data analysis of the research questions and the results of the ANOVA and independent samples t-tests that were ran. The results of the ANOVA revealed that there were not any significant differences between officers' MHASP total scores based on the hours of training the officer received, as well as patrol officers and administrative officers. However, the results of the independent t-tests revealed that there were significant differences between MHASP total scores for police officers who volunteered for mental health training and those who were mandated. Chapter 5 will detail the interpretations of this study and discuss limitations, implications for social change, and recommendations for future studies.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of the current quantitative study was to examine police officers who volunteered and those who did not volunteer for formal and informal mental health training as measured by their perceptions of individuals with mental illness after completion of the training. The independent variables were informal mental health training (0-16 hours), formal mental health training (17-39 hours), and CIT training or above for police officers. The dependent variables were the police officers' attitudes, knowledge of mental health, and level of confidence when handling calls for service with individuals with mental illness. In this exploratory study I focused on surveys of police officers within various departments across the state of Minnesota with informal, formal, and CIT training. This study explored the importance of formal mental health training for all police officers to improve relations between police officers and those with mental illness, as well as keeping both parties safer in their day-to-day contact.

To determine if there was a significant difference between police officer's training hours and their subsequent interactions with individuals with mental illness, a one-way analysis of variance (ANOVA) was used. The results of this analysis determined there was not a significant difference between the three groups (informal, formal, and CIT) and their subsequent interactions with individuals with mental illness. To determine if there was a significant difference between police officers who had volunteered for mental health training and those who were mandated, an independent *t*-

test was used. The results of this analysis determined there was a significant difference between those who had volunteered and those who had not. In this chapter, I will discuss the interpretation of the findings as well as the limitations of the study. I will also address any recommendations for future research and cover the implications for social change after completing this research.

Interpretation of Findings

The goal of this study was to look at whether there were differences between police officer perceptions of individuals with mental illness relating to two variables: hours of mental health training and voluntariness of the training. During data collection, another variable emerged: patrol and non-patrol differences in perceptions of individuals with mental illness. This new variable was added after realizing a significant number of non-patrol officers were completing the survey. The following subsections will investigate these variables as they relate to literature previously presented in Chapter 2 to help provide potential interpretations of the findings of this study.

Differences in Hours of Training

Previous researchers have looked at the effectiveness of police CIT training on several variables including officer knowledge of mental illness, confidence level, attitudes and perceptions of individuals with mental illness, and stigmatizing attitudes toward individuals with mental illness (Booth et al., 2017; Compton et al., 2014; Cuddeback et al., 2016; Ellis, 2014; Kubiak et al., 2017; Mulay et al., 2016). The results of these studies showed similar outcomes in that police officers who had completed CIT training had higher results in the above factors than those of their non-CIT trained

counterparts. The effectiveness of formal training has also been previously researched in the form of 1-day mental health trainings. The results of these studies have shown an improvement in officer's knowledge of mental illness, increase in positive attitudes toward individuals with mental illness, and in increase in confidence level (Krameddine et al., 2013; Krameddine & Silverstone, 2015; Pinfold et al., 2003).

Unlike these previous studies, the current study looked at significant differences between varying hours of mental health training on police officers' perceptions of individuals with mental illness versus trained and non-trained officers. The results of the present study revealed no significant differences between the three participant groups (0-16 hours, 17-39 hours, and CIT or higher). These results were unexpected as I had predicted that there would be significant differences, with higher scores found with higher number of hours of training. The results of this study could show that any amount of mental health training for police officers may have a positive impact on their subsequent interactions with individuals with mental illness. As Krameddine and Silverstone (2015) pointed out, there have been numerous studies that have focused on the positive impact that mental health training for entry level police officers around the world has had in recent years. These researchers further explored the impact of a one-day hands-on mental health training for police officers in Canada to determine before and after differences in officer attitudes upon completion of the training. This study also showed that behavioral changes 6 months after training completion were still improved in areas such as confidence level, improvement in communication skills, and knowledge mental health variables (Krameddine & Silverstone, 2015). This also would be supported

by the results of several CIT training studies in which an increase in police officers positive attitudes were determined after completion of the 40-hour training in areas such as confidence level, knowledge of mental health, and improvement in stigmatizing attitudes toward individuals with mental illness (Booth et al., 2017; Cuddeback et al., 2016; Kubiak et al., 2017; Mulay et al., 2016). The results of this study add to the current literature by providing a different look at how mental health training can impact a police officer's perceptions of individuals with mental illness.

Voluntary Versus Mandated

Previous studies have acknowledged police officer voluntariness as one of the essential aspects of mental health training (Compton, Bakeman, Broussard, D'Orio, & Watson, 2017). Officers who go through CIT training are deemed special responders once they have completed their training and can oftentimes be listed as the lead officer in a call with an individual with mental illness (Compton et al., 2017). CIT training was meant to be on a voluntary basis (Kubiak et al., 2017). Previous researchers studying CIT training found that between 31% and 100% of officers volunteered for the training (Compton et al., 2014; Cuddeback et al., 2016). The study by Compton et al. (2017) specifically looked at differences between police officers who volunteered and those who were mandated for CIT training on eight variables: (a) knowledge of mental illness, (b) attitudes towards individuals with mental illness, (c) self-efficacy in calls for service involving individuals with mental illness, (d) stigma, (e) de-escalation skills, (f) referral choices, (g) level of force, and (h) outcome of call. The results showed that police officers who volunteered had higher scores for attitudes, self-efficacy, stigma, de-

escalation skills, and referral choices when looking at calls for service with individuals with mental illness (Compton et al., 2017).

Unlike these previous studies, in the current study, I looked at significant differences between police officers who had volunteered versus those who were mandated with varying hours of mental health training and their subsequent perceptions of individuals with mental illness. The results revealed a significant difference between police officers who volunteered for mental health training as compared to those who were mandated. These findings align with current literature in that significant differences have been found in police officers who volunteered versus those who were mandated. In Compton et al.'s (2017) study, police officers who had volunteered showed improved attitudes and self-efficacy even years after completion of the training versus their mandated counterparts. In this study, police officers who volunteered had a much higher rate of contact with the mental health system whether it be personally or through a family member. This may help explain the higher results in police officers who volunteered versus those that were mandated because of the higher exposure rate they had previously seen. These officers may also have a higher interest in the mental health arena, further explaining their higher results. These findings also add to the literature by including the varying hours of mental health training, and not just looking at CIT trained officers.

Patrol Versus Non-Patrol

A new variable emerged during data collection for this study: differences between patrol and non-patrol participants. The goal of the study was to include only patrol officers in the population requirements as these officers were the most likely to have

regular contact with individuals with mental illness. The flyer that was distributed to the police sheriffs and chiefs indicated that this study was looking for licensed police officers in the state of Minnesota who are regularly on patrol. However, when data collection was complete, it was discovered that a significant amount of the surveys had been completed by non-patrol officers. Because the licensing requirements are the same for all officers in the State of Minnesota, it was determined that this would be a new variable to measure to see if there were any differences between officers who regularly interact with individuals with mental illness and those who currently do not.

To date there have been no previous studies that focused on differences between patrol and non-patrol officer perceptions of individuals with mental illness. There also has not been any research looking at differences between patrol and non-patrol officer perceptions of individuals with mental illness after completing mental health training. This was an important variable to include because according to research, in order for a mental health training such as CIT to be successful in a department, the administration such as the sheriff or chief of police need to be on board with the program (Jines, 2016). It should be noted that one of Alport's preconditions of contact theory suggests that there needs to be an authority figure that overarches the supportive efforts of the task at hand in order for the effort to be successful (Kanol, 2014). The results of the present study revealed that there was not a significant difference between patrol officers as compared to non-patrol officers. Licensing requirements are the same for all officers within the state of Minnesota, and the new legislation that requires at least 16 hours of mental health training every three years may have a greater impact on an officer's attitude with

individuals with mental illness. Contact may be different between patrol and non-patrol officers with individuals with mental illness, but this does not seem to have an impact on their attitudes toward individuals with mental illness. This study adds to the literature by providing a starting point for further research involving patrol and non-patrol officer perceptions of individuals with mental illness after mental health training.

Contact Theory

One of the main themes behind contact theory is that the more groups interact, the higher chance that prejudice will decrease between groups if the interactions are deemed in a positive light (Desmarais et al., 2014). This theory has been researched with several populations including individuals with mental illness (Pettigrew & Tropp, 2006). 7-10% of police calls involve an individual with mental illness (Strassle, 2019), with many of these interactions having the potential to be less than positive for many reasons. Calls involving individuals with mental illness typically take longer to reach an outcome, and additional tactics become a required component of the call because ordinary police tactics do not necessarily work with this specified population (Canada et al., 2012). Positive interactions oftentimes result in positive outlook of police officers by the group in question, while negative interactions lead to negative views of police officers (Kanol, 2014). Nonetheless, a call for service involving an individual with mental illness may initially be approached with a negative attitude.

Another important part of contact theory as it relates to this study is that the more one group learns about the other the chances of negative stigma being reduced is greater (Kanol, 2014). The impact of learning more about a certain population can help contest

any negative attitudes or stigma that may have been previously held by helping to understand the dynamics of the population in question. Learning about another group can also help the in-group see aspects in common with the out-group rather than leaning toward differences that may exist (Kanol, 2014). This supports the idea that mental health training for police officers may impact preconceived notions of individuals with mental illness and improve negative stigma associated with these calls. The results of this study accepted the null hypothesis that there would be no significant differences in police officer attitude based on the varying hours of mental health training. Because there were no significant differences in police officer attitudes based on the hours of mental health training they received, this suggests prior research that both CIT (or additional hours of training) and one day training sessions can have a positive impact on police officer attitudes upon completion of training. When taking contact theory into consideration, learning about another group can have an impact on a police officer's attitude toward individuals with mental illness. In this case, the learning is provided by specific mental health training that officers are receiving at varying hours and in turn having a positive impact on their attitudes toward individuals with mental illness upon completion. Since police officers are interacting with individuals with mental illness at a higher rate, according to contact theory, the more positive interactions that are had between the two groups the higher likelihood that these interactions will be more positive. Ultimately improving a police officer's confidence level, knowledge of mental illness, and attitudes toward individuals with mental illness via training can help improve the interactions between these two groups.

Limitations of the Study

One of the limitations of this study is that it was limited to police officers within the state of Minnesota. Because this study solely focused on police officers in Minnesota, officers in other geographic may have different experiences that would reflect different results. Different training requirements and department policies in other geographic areas may also have a difference in the results. Another limitation was the change in the training requirements for the police officers in Minnesota. Since July 2018, Minnesota police officers are now required to complete 16 hours of mental training every three years. Because this training is now mandatory, police officers may have a different outlook on completing these trainings, and potentially on their attitudes toward individuals with mental illness. To help safeguard this limitation, I added an additional survey question inquiring if the officer had completed the mental health training voluntarily or if they were mandated.

Another limitation to this study was participant honesty and willingness to answer all the questions. There are several reasons why an officer would not have been willing to answer all the questions in the survey, or to be completely honest in their answers. Officers may think that the answers they give may have a negative impact on their profession or their own beliefs or the idea that the reason for the survey is meant to "catch" them doing something wrong. This could also be explained by the close-knit police culture and a suspicion of those outside the thin blue line (El Sayed, Sanford, & Kerley, 2019). These issues were addressed in the implied consent form in that the officers were informed that completion of the survey was completely anonymous and

voluntary. Because I had several departments that participated, there was no identifying information that was collected and no way of knowing who completed the surveys.

There were a couple of world events that may also be a limitation to this study, due to the timing of the study. I received my IRB approval on February 21, 2020, and by the time I was done loading my survey into Survey Monkey and started my outreach to police departments it was the middle of March 2020. This correlated with the time that the Coronavirus pandemic really hit the state of Minnesota, with Minnesota going into a shelter in place order starting March 25, 2020. The pandemic is something departments were not prepared for. While these departments were revamping everything that they once knew as their day-to-day interactions with the community this may not have been the best time for data collection. The other event during data collection was the death of George Floyd on May 25, 2020. This was not only a local event, but also a national event that spurred many national riots and unrest. Because of this event it was determined that data collection past this date may be skewed if I was able to gather additional data at all.

Recommendations

One recommendation for future research would include expanding the participant population outside of Minnesota. Since this study solely focused on police officers in Minnesota, expanding the participant population to other areas of the country may shed further light on any differences that exist between formally and informally trained officers. This would allow for additional data that would include different state guidelines for mental health training requirements for police officers. Expanding

participant areas would also include additional information on officers who volunteered versus those that were mandated. Looking at different areas may also reflect and cultural differences that may exist in different areas of the country.

Another recommendation would be to complete this study at a time when we are not experiencing a pandemic. Because the COVID-19 pandemic is something that had not been experienced in this country, police departments were preparing to make changes in the way they view and approach calls for service. This enhanced planning may have had an impact on participant participation of this study. During this study, I was told several times that this may not be the best time to conduct research by different departments within the state. The reason that I went ahead with data collection was because I had other departments tell me that this may be the best time to collect survey information. Officers were conducting business via the office and may have had more access to the survey itself. As such, conducting this study at a non pandemic period may produce different or additional results.

Completing a qualitative study may provide additional information that could help explain the results of this study. Even looking at a mixed methods approach, wherein a researcher could further interview some of the participants in this study to seek additional information. Being able to complete a qualitative study might also help with completion rate and may also provide an opportunity for officers to feel more comfortable rather than just a person collecting information on them. This additional approach could also help explain the impact of mental health training in greater detail and give officers a chance to explain some of the changes after the training is completed.

It may be beneficial to complete a pre-training score to see where the officer was both before and after mental health training to see what differences are revealed. This study strictly looked at post-training differences in police officer attitude toward individuals with mental illness. Adding the additional layer of police officer attitude before training would allow for further comparisons to be made as an indicator of training success.

Implications

There are several implications for positive social change looking at the current study. The first area is at the individual level or officer in this case. Because an estimated 7-10% of police officer calls for service involve an individual with mental illness (Strassle, 2019), the importance of mental health training has long been a factor. Police officers have also expressed their desire for additional mental health training and signified the importance of this training in their day-to-day activities (Compton et al., 2014). By providing police officers additional mental health training as a means to improve their day-to-day activities while also providing a training that many officers expressed an interest in will help police officers collect the tools they need to execute their duties day in and day out. Although there was not a significant difference between the three groups (0-16 hours, 17-39 hours, or CIT and beyond), the importance of mental health training in general can still be associated to this study. By providing police officers additional mental health training to give them further tools to sufficiently do their jobs is a positive aspect.

At an organizational and potentially a policy level, the results of this study may also lead to positive social change for police departments in the way that they approach mental health trainings. In previous studies, police chiefs and sheriffs have identified time and manpower as the reasons why certain mental health trainings have not been utilized in their departments (Compton et al., 2015). Prior studies on the impact of formal one-day mental health training for police officers have shown positive results in several areas including communication, de-escalation skills, and officer confidence when dealing with a situation involving an individual with mental illness (Krameddine & Silverstone, 2015). Since the results of this study did not show a significant difference in police officer attitude toward those with mental illness based on the amount of hours of training, this could have an impact on the importance of training in general. This study could also support policy changes for police officer mental health training requirements, the way in which Minnesota changed their requirements in 2018.

At a societal level, this study has the potential for positive social change by bringing mental health awareness to the forefront. The information presented in this study has shown the stigma risk that is associated with individuals with mental illness, and how this stigma can impact them in their day-to day activities including engagement with law enforcement. By bringing awareness to this social issue, more focus can be dedicated to changing the way in which society as a whole sees individuals with mental illness. The other societal impact is that this study has the potential to improve relations between law enforcement and individuals with mental illness, so that both are safer in their interactions.

Conclusion

The findings of this study added to the current literature on mental health training for police officers. This study was able to add to the literature in that there was a significant difference between police officers who volunteered versus those who were mandated and the subsequent impact on their attitude toward individuals with mental illness. Previous studies had focused on the impact of mental health training before and after the training was completed, but this study provided data on varying hours of mental health trainings after completion of training. The results of this variable indicated that there was not a significant difference between police officer's varying hours of mental health training and their subsequent attitudes toward individuals with mental illness. This study also provided data on another new variable to the current literature, differences in police officer attitudes toward those with mental illness of police administrators and patrol officers. There were no significant differences between police administrators and patrol officers, and these results could help guide future research on these differences as an overarching and supportive administration is a highlight of some mental health training programs (Jines, 2016). Understanding police officer mental health training needs and the impact of these trainings can have an influence on how departments approach training needs as well as help to improve the relations between police officers and individuals with mental illness.

References

Bailey, K., Paquet, S. R., Ray, B. R., Grommon, E., Lowder, E. M., & Sightes, E. (2018). Barriers and facilitators to implementing an urban co-responding police-mental health team. *Health & Justice*, *6*(1), 1–12. https://doi.org/10.1186/s40352-018-0079-0

Baillargeon, J., Penn, J. V., Knight, K., Harzke, A. J., Baillargeon, G., & Becker, E. A. (2010). Risk of reincarceration among prisoners with co-occurring severe mental illness and substance use disorders. *Administration & Policy in Mental Health & Mental Health Services Research*, *37*(4), 367–374.

Balyakina, E., Mann, C., Ellison, M., Sivernell, R., Fulda, K., Sarai, S., & Cardarelli, R. (2014). Risk of future offense among probationers with co-occurring substance use and mental health disorders. *Community Mental Health Journal*, *50*(3), 288–295. https://doi.org/10.1007/s10597-013-9624-4

Biswas, J. (2017). When jails become hospitals: The fallout from a fragmented mental health system. *Criminal Justice*, *3*, 4. Retrieved from https://link.gale.com/apps/doc/A515580703/LT?u=minn4020&sid=LT&xid=f99ef8a5

Blevins, K. R., & Soderstrom, I. R. (2015). The mental health crisis grows on: A descriptive analysis of DOC systems in America. *Journal of Offender Rehabilitation*, *54*(2), 142–160. https://doi.org/10.1080/10509674.2015.1009965

Bonfine, N., Ritter, C., & Munetz, M. R. (2014). Police officer perceptions of the impact of crisis intervention team programs. *International Journal of Law and*

Psychiatry, *37*(4), 341–350. https://doi.org/10.1016/j.ijlp.2014.02.004

Booth, A., Scantlebury, A., Hughes-Morley, A., Mitchell, N., Wright, K., Scott, W., & McDaid, C.. (2017). Mental health training programmes for non-mental health trained professionals coming into contact with people with mental ill health: A systematic review of effectiveness. *BMC Psychiatry*, *17*(1), 1–24. https://doi.org/10.1186/s12888-017-1356-5

Brandt, A. S. (2012). Treatment of persons with mental illness in the criminal justice system: A literature review. *Journal of Offender Rehabilitation*, *51*(8), 541–558. https://doi.org/10.1080/10509674.2012.693902

Braslow, J. T. (2013). The manufacture of recovery. *Annual Review of Clinical Psychology*, *9*, 781–809. https://doi.org/10.1146/annurev-clinpsy-050212-185642

Broaddus, E. T., Scott, K. E., Gonsalves, L. M., Parrish, C., Rhodes, E. L., Donovan, S. E., & Winch, P. J. (2013). Building connections between officers and Baltimore city youth: Key components of a police-youth teambuilding program. *Journal of Juvenile Justice, 3*(1), 48–62. Retrieved from https://betasite.csrincorporated.com/JOJJ/index.html

Bronson, J., & Berzofsky, M. (2017). Bureau of Justice statistics - Indicators of a mental health problem reported by prisoners and jail inmates, 2011–2012 [Press Release]. Retrieved from https://www.bjs.gov/content/pub/press/imhprpji1112pr.cfm

Brooks, C. (2019). Bureau of Justice statistics – Sheriffs' offices, 2016. Retrieved from https://www.bjs.gov/content/pub/pdf/so16p.pdf

Brophy, I. N. (1945). The luxury of anti-Negro prejudice. *Public Opinion Quarterly*, *9*(4), 456–466. https://doi.org/10.1086/265762

Browning, S. L., Van Hasselt, V. B., Tucker, A. S., & Vecchi, G. M. (2011). Dealing with individuals who have mental illness: The crisis intervention team (CIT) in law enforcement. *The British Journal of Forensic Practice, 13*(4), 235–243. https://doi.org/10.1108/14636641111189990

Canada, K. E., Angell, B., & Watson, A. C. (2012). Intervening at the entry point: Differences in how CIT trained and non-CIT trained officers describe responding to mental health-related calls. *Community Mental Health Journal*, *48*(6), 746–755. https://doi.org/10.1007/s10597-011-9430-9

Campbell, J., Ahalt, C., Hagar, R., & Arroyo, W. (2017). Building on mental health training for law enforcement: strengthening community partnerships. *International Journal of Prisoner Health*, *13*(3/4), 207–212. https://doi.org/10.1108/IJPH-10-2016-0060

Chaimowitz, G. (2012). The criminalization of people with mental illness. *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie*, *57*(2), Insert 1-6. Retrieved from https://journals.sagepub.com/home/cpa

Chuck, E., Johnson, A., & Siemaszko, C. (2018). 17 killed in mass shooting at high school in Parkland, Florida. *NBC NEWS*. Retrieved from https://www.nbcnews.com/news/us-news/police-respond-shooting-parkland-florida-high-school-n848101

Clayfield, J. C., Fletcher, K. E., & Grudzinskas, A. J. Jr. (2011). Development and

validation of the mental health attitude survey for police. *Community Mental Health Journal, 47*(6), 742–751. https://doi.org/10.1007/s10597-011-9384-y

Compton, M. T., Bahora, M., Watson, A. C., & Oliva, J. R. (2008). A comprehensive review of extant research on crisis intervention team (CIT) programs. *Journal of the American Academy of Psychiatry and the Law*, *36*(1), 47–55. Retrieved from http://jaapl.org/

Compton, M. T., Bakeman, R., Broussard, B., Hankerson-Dyson, D., Husbands, L., Krishan, S., … Watson, A. C. (2014). The police-based crisis intervention team (CIT) model: I Effects on officers' knowledge, attitudes, and skills. *Psychiatric Services*, *65*(4), 517–522. https://doi.org/10.1176/appi.ps.201300107

Compton, M. T., Broussard, B., Reed, T. A., Crisafio, A., & Watson, A. C. (2015). Surveys of police chiefs and sheriffs and of police officers about CIT programs. *Psychiatric Services*, *66*(7), 760–763. https://doi.org/10.1176/appi.ps.201300451

Compton, M. T., Bakeman, R., Broussard, B., D'Orio, B., & Watson, A. (2017). Police officers' volunteering for (rather than being assigned to) crisis intervention team (CIT) training: Evidence for a beneficial self-selection effect. *Behavioral Sciences & the Law*, *35*(5–6), 470–479. https://doi.org/10.1002/bsl.2301

Creswell, J. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.

Crocker, A. G., Nicholls, T. L., Seto, M. C., Roy, L., Leclair, M. C., Brink, J., … Côté, G. (2015). Research priorities in mental health, justice, and safety: A multidisciplinary stakeholder report. *The International Journal of Forensic*

Mental Health, *14*(3), 205–217. https://doi.org/10.1080/14999013.2015.1073197

Cuddeback, G. S., Kurtz, R. A., Wilson, A. B., VanDeinse, T., & Burgin, S. E. (2016). Segmented versus traditional crisis intervention team training. *Journal of the American Academy of Psychiatry and the Law*, *44*(3), 338–343. Retrieved from http://jaapl.org/

Cummins, I., & Edmondson, D. (2016). Policing and street triage. *The Journal of Adult Protection, 18*(1), 40-52. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1108/JAP-03-2015-0009

Davidson, M. L., & Rosky, J. W. (2015). Dangerousness or diminished capacity? Exploring the association of gender and mental illness with violent offense sentence length. *American Journal of Criminal Justice : AJCJ, 40*(2), 353-376. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1007/s12103-014-9267-1

Desmarais, S. L., Livingston, J. D., Greaves, C. L., Johnson, K. L., Verdun-Jones, S., Parent, R., & Brink, J. (2014). Police perceptions and contact among people with mental illnesses: comparisons with a general population survey. *Psychology, Public Policy, and Law, 20*(4), 431-442. doi:10.1037/law0000023

Dlugacz, H. A. (2014). Correctional mental health in the USA. *International Journal of Prisoner Health, 10*(1), 3-26. Retrieved from http://ezp.waldenulibrary.org/login?url=https://search-proquest-com.ezp.waldenulibrary.org/docview/1508402834?accountid=14872

El Sayed, S.,A., Sanford, S. M., & Kerley, K. R. (2019). Understanding workplace stress among federal law enforcement officers. *American Journal of Criminal Justice :*

AJCJ, 44(3), 409-429. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1007/s12103-019-09474-8

Ellis, H. A. (2014). Effects of a Crisis Intervention Team (CIT) training program upon Police officers before and after Crisis Intervention Team Training. *Archives Of Psychiatric Nursing*, *28*(1), 10-16. doi:10.1016/j.apnu.2013.10.003

Falconer, E., El-hay, T., Alevras, D., Docherty, J. P., Yanover, C., Kalton, A., . . . Rosen-zvi, M. (2017). Integrated multisystem analysis in a mental health and criminal justice ecosystem. *Health & Justice, 5*(1), 1-8. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1186/s40352-017-0049-y

Field, A. (2013). *Discovering statistics using IBM SPSS Statistics.* Thousand Oaks, CA: Sage.

Frankfort-Nachmias, C., & Nachmias, D. (2008). *Research methods in the social sciences* (7th ed.). New York: Worth.

Gala, G. J., & Laughon, S. L. (2017). Conceptualization of a mental disorder: A clinical perspective. *Philosophy, Psychiatry & Psychology : PPP, 24*(1), 41-43. http://dx.doi.org.ezp.waldenulibrary.org/10.1353/ppp.2017.0005

Godfredson, J. W., Ogloff, J. R. P., Thomas, S. D. M., & Luebbers, S. (2010). Police discretion and encounters with people experiencing mental illness: The significant factors. *Criminal Justice and Behavior*, *37*(12), 1392–1405. https://doi-org.ezp.waldenulibrary.org/10.1177/0093854810383662

Grohs, M. (2016). Clinical State. *Corrections Forum, 25*(5), 41-44. Retrieved from https://search-proquest

com.ezp.waldenulibrary.org/docview/1927178386?accountid=14872

Grohs, M. (2016). Continuing mental health care after release. *Corrections Forum, 25*(5), 46-49. Retrieved from https://search-proquestcom.ezp.waldenulibrary.org/docview/1927176692?accountid=14872

Hanafi, S., Bahora, M., Demir, B. N., & Compton, M. T. (2008). Incorporating crisis intervention team (CIT) knowledge and skills into the daily work of police officers: A focus group study. *Community Mental Health Journal*, *44*(6), 427-432. doi:10.1007/s10597-008-9145-8

Hansson, L., & Markström, U. (2014). The effectiveness of an anti-stigma intervention in a basic police officer training programme: A controlled study. *BMC Psychiatry*, *14*. doi:10.1186/1471-244X-14-55

Harnish, A., Corrigan, P., Byrne, T., Pinals, D. A., Rodrigues, S., & Smelson, D. (2016). Substance use and mental health stigma in veterans with co-occurring disorders. *Journal of Dual Diagnosis*, *12*(3/4), 238–243. https://doi-org.ezp.waldenulibrary.org/10.1080/15504263.2016.1245066

Haugen, P. T., McCrillis, A. M., Smid, G. E., & Nijdam, M. J. (2017). Mental health stigma and barriers to mental health care for first responders: A systematic review and meta-analysis. *Journal Of Psychiatric Research*, *94*218-229. doi:10.1016/j.jpsychires.2017.08.001

Helfgott, J. B., Hickman, M. J., & Labossiere, A. P. (2016). A descriptive evaluation of

the Seattle police department's crisis response team officer/mental health professional partnership pilot program. *International Journal Of Law And Psychiatry*, *44*109-122. doi:10.1016/j.ijlp.2015.08.038

Henshaw, M., & Thomas, S. (2012). Police encounters with people with intellectual disability: prevalence, characteristics and challenges. *Journal of Intellectual Disability Research*, *56*(6), 620–631. https://doi-org.ezp.waldenulibrary.org/10.1111/j.1365-2788.2011.01502.x

Hoffman, R., Hirdes, J., Brown, G. P., Dubin, J. A., & Barbaree, H. (2016). The use of a brief mental health screener to enhance the ability of police officers to identify persons with serious mental disorders. *International Journal of Law and Psychiatry*, *47*, 28–35. https://doi-org.ezp.waldenulibrary.org/10.1016/j.ijlp.2016.02.031

Hudson, C. G. (2016). A model of deinstitutionalization of psychiatric care across 161 nations: 2001–2014. *International Journal of Mental Health*, *45*(2), 135–153. https://doi-org.ezp.waldenulibrary.org/10.1080/00207411.2016.1167489

Hyland, S. & Davis, E. (2019). Bureau of Justice Statistics – Local Police Departments, 2016: Personnel. Retrieved from https://www.bjs.gov/content/pub/pdf/lpd16p.pdf

Ivancevich, D. M. (2015). *Crisis intervention team (CIT) training for emergency medical*

services (EMS) personnel (Order No. 1598837). Available from Criminal Justice Database. (1721985049). Retrieved from https://search-proquest-com.ezp.waldenulibrary.org/docview/1721985049?accountid=14872

Jines, J. K. (2016). Crisis intervention teams. *Sheriff & Deputy*, *68*(4), 64. Retrieved from https://search-ebscohostcom.ezp.waldenulibrary.org/login.aspx?direct=true&db=edo&AN=109288300&site=eds-live&scope=site.

Kanol, D. (2014). Social cohesion activities and attitude change in Cyprus. *International Journal of Conflict & Violence*, *8*(2), 296–304.

Kesic, D., Thomas, S. D. M., & Ogloff, J. R. P. (2013). Use of nonfatal force on and by persons with apparent mental disorder in encounters with police. *Criminal Justice and Behavior*, *40*(3), 321–337. https://doi-org.ezp.waldenulibrary.org/10.1177/0093854812474425

Klein, J. (2014). Asylums and human rights. *Journal of Ethics in Mental Health*, *9*, 1. Retrieved from https://search-ebscohost-com.ezp.waldenulibrary.org/login.aspx?direct=true&db=edo&AN=109288300&site=eds-live&scope=site.

Krameddine, Y., DeMarco, D., Hassel R., & Silverstone, P. (2013). A novel training program for police officers that improves interactions with mentally ill individuals and is cost-effective. *Frontiers in Psychiatry, Vol 4 (2013)*. https://doi-org.ezp.waldenulibrary.org/10.3389/fpsyt.2013.00009/full

Krameddine, Y. I., & Silverstone, P. H. (2015). How to improve interactions between

police and the mentally ill. *Frontiers in Psychiatry*, *5*. https://doi-org.ezp.waldenulibrary.org/10.3389/fpsyt.2014.00186

Kubiak, S., Comartin, E., Milanovic, E., Bybee, D., Tillander, E., Rabaut, C., Bisson, H., Dunn, L. M., Bouchard, M. J., Hill, T., & Schneider, S. (2017). Countywide implementation of crisis intervention teams: Multiple methods, measures and sustained outcomes. *Behavioral Sciences & the Law*, *35*(5–6), 456–469. https://doi-org.ezp.waldenulibrary.org/10.1002/bsl.2305

Kulbarsh, P. (2016). Deinstitutionalization still haunts us sixty years later. (2016). *Officer.Com.* Retrieved from https://ezp.waldenulibrary.org/login?url=https://search-proquest-com.ezp.waldenulibrary.org/docview/1808327242?accountid=14872

Liegghio, M., & Jaswal, P. (2015). Police encounters in child and youth mental health: could stigma informed crisis intervention training (CIT) for parents help? *Journal of Social Work Practice*, *29*(3), 301–319. https://doi-org.ezp.waldenulibrary.org/10.1080/02650533.2015.1050654

Lillie, M. (2017). As mental health calls rise, MN police training takes on vital role. Retrieved from https://www.mprnews.org/story/2017/11/03/minnesota-cops-training-deescalate-crises-mentally-ill

Livingston, J. (2016). Contact between police and people with mental disorders: A

review of rates. *Psychiatric Services*, (8), 850. https://doi-org.ezp.waldenulibrary.org/10.1176/appi.ps.201500312

Lurigio, A. J. (2020). DSM-5. *Salem Press Encyclopedia of Health*.

Margolis, G., & Shtull, P. (2012). The police response to mental illness on campus. *Journal of College Student Psychotherapy*, *26*(4), 307–321. https://doi-org.ezp.waldenulibrary.org/10.1080/87568225.2012.711179

Merriam-Webster. (2019). Confidence. Retrieved from https://www.merriam-webster.com/dictionary/confidence

Merriam-Webster. (2019a). Knowledge. Retrieved from https://www.merriam-webster.com/dictionary/knowledge

Morabito, M. S., Socia, K., Wik, A., & Fisher, W. H. (2017). The nature and extent of police use of force in encounters with people with behavioral health disorders. *International Journal of Law and Psychiatry*, *50*, 31–37. https://doi-org.ezp.waldenulibrary.org/10.1016/j.ijlp.2016.10.001

Morabito, M. S.,Watson, A., & Draine, J. (2013). Police officer

acceptance of new innovation: the case of crisis intervention teams. *Policing: An International Journal of Police Strategies & Management*, *36*(2), 421–436. https://doi-org.ezp.waldenulibrary.org/10.1108/13639511311329778

Mulay, A. L., Vayshenker, B., West, M. L., & Kelly, E. (2016). Crisis Intervention Training and Implicit Stigma Toward Mental Illness: Reducing Bias Among Criminal Justice Personnel. *International Journal of Forensic Mental Health*, *15*(4), 369–381. https://doi-org.ezp.waldenulibrary.org/10.1080/14999013.2016.1208308

National Institute of Mental Health. (2019). Mental Illness. Retrieved from https://www.nimh.nih.gov/health/statistics/mental-illness.shtml

Noga, H., Foreman, A., Walsh, E., Shaw, J., & Senior, J. (2016). Multi-agency action learning: Challenging institutional barriers in policing and mental health services. *Action Research*, *14*(2), 132–150. https://doi-org.ezp.waldenulibrary.org/10.1177/1476750315583315

Peters, R. H., Young, M. S., Rojas, E. C., & Gorey, C. M. (2017). Evidence-based treatment and supervision practices for co-occurring mental and substance use disorders in the criminal justice system. *The American Journal Of Drug And Alcohol Abuse*, *43*(4), 475–488. https://doi-org.ezp.waldenulibrary.org/10.1080/00952990.2017.1303838

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. Journal of Personality & Social Psychology, 90(5), 751–783.

Pillay, A. L. (2017). Is deinstitutionalisation a cheap alternative to chronic mental health

care? *South African Journal of Psychology*, *47*(2), 141–147. https://doirg.ezp.waldenulibrary.org/10.1177/0081246317709959

Pinfold, V., Huxley, P., Thornicroft, G., Farmer, P., Toulmin, H., & Graham, T. (2003). Reducing psychiatric stigma and discrimination: Evaluating an educational intervention with the police force in England. *Social Psychiatry & Psychiatric Epidemiology*, *38*(6), 337. https://doi-org.ezp.waldenulibrary.org/10.1007/s00127-003-0641-4

Prins, S. J. (2011). Does transinstitutionalization explain the overrepresentation of people with serious mental illnesses in the criminal justice system?. *Community Mental Health Journal*, *47*(6), 716-722. doi:10.1007/s10597-011-9420-y

Robey-Hooper, A. (2015). *Dynamic social perceptions of mental illness over the centuries: A historical case study* (Order No. 3735137). Available from Criminal Justice Database. (1738999918). Retrieved from https://search-proquest-com.ezp.waldenulibrary.org/docview/1738999918?accountid=14872

Sarsfield, Rodolfo, & Garson, G. David. (2018). *Research design*. Asheboro, NC: G. David Garson and Statistical Associates Publishing.

Sellers, C. L., Sullivan, C. J., Veysey, B. M., & Shane, J. M. (2005). Responding to persons with mental illnesses: police perspectives on specialized and traditional practices. *Behavioral Sciences & the Law*, *23*(5), 647–657. https://doi-org.ezp.waldenulibrary.org/10.1002/bsl.633

Stanglin, D. & Curley, J. (2018). 'Horrific scene': 12 dead in Thousand Oaks, California, bar shooting; shooter identified as Ian David Long. *USA TODAY*. Retrieved from

https://www.usatoday.com/story/news/2018/11/08/mass-shooting-borderline-bar-grill-thousand-oaks-southern-california/1927840002/

Steadman, H. J., & Morrissette, D. (2016). Police responses to persons with mental illness: Going beyond CIT training. Psychiatric Services, 67(10), 1054-1056. https://doi-org.ezp.waldenulibrary.org/10.1176/appi.ps.201600348

Stone, D. (2018). Dangerous minds: myths and realities behind the violent behavior of the mentally ill, public perceptions, and the judicial response through involuntary civil commitment. *Law & Psychology Review*, *42*, 59–83. Retrieved from https://search-ebscohost-com.ezp.waldenulibrary.org/login.aspx?direct=true&db=a9h&AN=130640738&site=eds-live&scope=site

Strassle, C. G. (2019). CIT in small municipalities: Officer-level outcomes. *Behavioral Sciences & the Law*, *37*(4), 342–352. https://doi-org.ezp.waldenulibrary.org/10.1002/bsl.2395

Substance Abuse and Mental Health Services Administration (2019). Mental and Substance Use Disorders. Retrieved from https://www.samhsa.gov/disorders

The Office of the Revisor of Statutes (2016). 2018 Minnesota Statutes. *626.8469 Training in Crisis response, Conflict Management, and Cultural Diversity.* Retrieved from: https://www.revisor.mn.gov/statutes/2018/cite/626.8469?keyword_type=all&keyword=crisis+intervention+and+mental+illness+crises

Thompson, M., & Kahn, K. B. (2018). Law enforcement response to mental health crises:

Citizen risk factors and preferences for social policy. *Police Practice & Research, 19*(4), 329-346. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1080/15614263.2017.1371599

Tichá, R., Hewitt, A., Nord, D., & Larson, S. (2013). System and individual outcomes and their predictors in services and support for people with IDD. *Intellectual And Developmental Disabilities*, *51*(5), 298-315. doi:10.1352/1934-9556-51.5.298

Tomar, N., Ghezzi, M. A., Brinkley-Rubinstein, L., Wilson, A. B., Van Deinse, T. B., Burgin, S., & Cuddeback, G. S. (2017). Statewide mental health training for probation officers: Improving knowledge and decreasing stigma. *Health & Justice, 5*(1), 1-5. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1186/s40352-017-0057-y

Watson, A. C., & Angell, B. (2013). The role of stigma and uncertainty in moderating the effect of procedural justice on cooperation and resistance in police encounters with persons with mental illnesses. *Psychology, Public Policy, and Law*, *19*(1), 30–39. https://doi-org.ezp.waldenulibrary.org/10.1037/a0027931

Watson, A. C., & Fulambarker, A. J. (2012). The crisis intervention team model of police response to mental health crises: A primer for mental health practitioners. *Best Practices In Mental Health: An International Journal*, *8*(2), 71-81.

Watson, A. C., Swartz, J., Bohrman, C., Kriegel, L. S., & Draine, J. (2014). Understanding how police officers think about mental/emotional disturbance calls. *International Journal Of Law And Psychiatry*, *37*(4), 351-358. doi:10.1016/j.ijlp.2014.02.005

White, M. D., Goldkamp, J. S., & Campbell, S. P. (2006). Co-occurring mental illness and substance abuse in the criminal justice system - Some implications for local jurisdictions. *PRISON JOURNAL*, *86*(3), 301–326. https://doi-org.ezp.waldenulibrary.org/10.1177/0032885506290852