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Walden University

College of Psychology and Community Services

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Regina Wachenheim

has been found to be complete and satisfactory in all respects,
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the review committee have been made.

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Walden University
2023

Abstract

Exploring Dual Roles in Law Enforcement Officers Who Administer Naloxone

by

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MPhil, Walden University, 2020

MS, Rutgers School of Health Professions, 2020

MS, Pace University, 2011

BS, Rutgers University, 2001

BA, Rutgers University, 2001

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Forensic Psychology

Walden University

February 2023

Abstract

With the introduction of law enforcement-administered naloxone, officers are assuming the dual role of law enforcer and caregiver with opioid users. This study used cognitive role theory and Thorne's interpretive approach to explore the dual roles experienced by officers. The purpose of this study was to understand (1) how officers who administer naloxone describe their experience of the dual role, and (2) how the officers describe the role expectations of law enforcer and caregiver. Seven officers completed semi-structured, one-on-one, telephone interviews. The eight themes that emerged were related to the officers' views of (1) saving and changing opioid users' lives; (2) humanizing the officers; (3) mental health, stress, and trauma of officers; (4) the cycle of opioid reuse and re-arrest of opioid users; (5) views of the opioid user; (6) views of their role; (7) flaws and recommended improvements to the system; and (8) views of the naloxone program. Findings showed the dual role has created role ambiguity and conflict and has created additional stress and trauma for the officers. Most officers in the study supported the use of naloxone and identified this new responsibility from the existing aspect of their role to save lives and improve the community. Recommendations included increased medical training to improve officers' confidence in making medical decisions, policy improvements to reduce role ambiguity and conflict, department and community naloxone implementation campaigns to socialize the concept before implementation into a department, emotional and psychological monitoring and supports for officers administering naloxone, and more outreach for secondary support following naloxone administration leading to positive social change.

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Dedication

This dissertation is dedicated to my mother, Terry Sullivan, who fought to be the first person in her family to graduate high school but was denied the opportunity to go to college because her family believed education was not appropriate for women. She pushed all of her children to pursue academia and will now become the mother of the first Ph.D. in the family. Her drive and passion to pursue greatness are inspirational, and the depth of her love for her children is unmatched.

This dissertation is also dedicated to my children, Liam and Caiden. You reminded me of the importance of following my dreams, despite any roadblocks in my way. Watching you grow and interact with a world that was not designed for you inspires me to face every challenge with grace and determination.

Mom, Liam, and Caiden – I love you more than I can possibly express, and I am forever grateful for your love, support, and encouragement.

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Table of Contents

List of Tables v

Chapter 1: Introduction to the Study 1

Introduction 1

Background 3

Problem Statement 4

Purpose of Study 7

Research Questions 7

Theoretical Framework for the Study 7

Nature of Study 9

Definitions 10

Assumptions 11

Scope and Delimitations 11

Limitations 12

Significance 13

Summary 14

Chapter 2: Literature Review 16

Introduction 16

Literature Search Strategy 18

Theoretical Framework 19

Literature Review 22

The Opioid Epidemic in the United States 22

Opioid Mechanism in the Body ... 27
Naloxone Intervention to Reverse Opioid-Related Overdose ... 31
Law Enforcement Officer Naloxone Programs ... 36
Dual Role of Law Enforcer and Caregiver ... 47
Summary and Conclusions ... 49
Chapter 3: Research Method ... 51
Research Design and Rationale ... 51
Role of the Researcher ... 53
Methodology ... 54
Participant Selection Logic ... 54
Instrumentation ... 56
Procedure for Recruitment, Participation, and Data Collection ... 56
Data Analysis Plan ... 59
Issues of Trustworthiness ... 60
Trustworthiness ... 60
Credibility ... 60
Transferability ... 61
Dependability ... 61
Confirmability ... 62
Ethical Procedures ... 62
Summary ... 63
Chapter 4: Results ... 64

Introduction....64

Setting....64

Demographics....65

Data Collection....66

Data Analysis....67

Coding using Elemental and Affective Techniques.... 69

Thematic Analysis.... 76

Evidence of Trustworthiness....80

Credibility.... 80

Transferability.... 80

Dependability.... 81

Confirmability.... 81

Results....82

Theme 1: Saving and Changing Lives.... 82

Theme 2: Humanizing the Law Enforcement Officer.... 83

Theme 3: Mental Health, Stress, and Trauma of the Officer.... 86

Theme 4: The Cycle of Reuse and Re-Arrest.... 88

Theme 5: Officers' Views of the Opioid Users.... 89

Theme 6: The Officers' Views of Their Role.... 91

Theme 7: Flaws and Improvements to the System.... 93

Theme 8: The Officers' Views of the Naloxone Program.... 96

Summary....98

Chapter 5: Discussion, Conclusions, and Recommendations..100
Introduction..100
Interpretation of the Findings..101
Findings Relevant to the Current Literature 101
Theme 1: Saving and Changing Lives 101
Theme 2: Humanizing the Officer 102
Theme 3: Mental Health, Stress, and Trauma.. 103
Theme 4: The Cycle of Reuse and Re-Arrest 104
Theme 7: Flaws and Improvements in the System 105
Theme 8: Officers' Views of the Naloxone Program 107
Findings Relevant to Role Theory 108
Limitations of the Study..114
Recommendations..116
Implications..117
Conclusion 119
References..123
Appendix A: Invitation 140
Appendix B: Interview Guide..141

List of Tables

Table 1 *Demographics* 66

Table 2 *Emotion Codes and Categories* 70

Table 3 *Values Codes and Categories* 71

Table 4 *Evaluation Codes and Categories* 73

Table 5 *Description Categories* 74

Table 6 *In Vivo Categories* 75

Table 7 *Themes and Examples of Codes and Quotes* 77

Table 8 *Data Distribution Table* 78

Table 9 *Research Questions* 98

Chapter 1: Introduction to the Study

Introduction

Over the past few decades, opioid abuse and overdose have spread throughout all economic and geographical regions of the United States without discrimination towards age, race, or gender. According to the Center for Disease Control (2020), opioids account for more drug-related deaths than all other drugs combined. Opioid-related deaths have surpassed car accident deaths, making opioids the highest cause of accidental deaths in the United States (Bluthenthal et al., 2020; Kirane, et al., 2016; Purviance et al., 2017; Saucier et al., 2016).

In 2013, the National Drug Control Strategy published the results of a successful pilot program for naloxone administration (brand name Narcan) by law enforcement officers to prevent opioid overdose (Office of National Drug Control Policy et al., 2013). Following this publication, law enforcement departments across the United States began implementing naloxone administration programs (Lowder et al., 2020; Lurigio et al., 2018; Rando et al., 2015). This has created the dual role of law enforcer and caregiver for officers who administer naloxone to opioid users. The literature has shown that since the program's introduction, law enforcement officers have significantly reduced opioid-related deaths by administering naloxone to opioid users in overdose crises (Fisher et al., 2016; Lowder et al., 2020; Rando et al., 2015). Although the literature revealed a significant reduction in opioid-related deaths associated with law enforcement officer-administered naloxone, only 13% of United States police departments use naloxone (Lowder et al., 2020). Additionally, research by Carroll et al. (2020) and Murphy and

Russell (2020) found that law enforcement officers who frequently administered naloxone have pessimistic views about naloxone use, resulting in lower endorsement scores for supporting the use of naloxone by law enforcement. This suggests a disconnect between the success shown in the literature and the lived experiences of the officers who administer naloxone. More research is needed to understand the perspectives of the officers who assume the dual role of law enforcer and caregiver when they administer naloxone to opioid users.

The current literature includes a substantive amount of research related to law enforcement officer naloxone training, as well as the successful use of law enforcement officer-administered naloxone at preventing opioid overdose deaths. However, there is a lack of research exploring the dual roles of law enforcer and caregiver that the officers must navigate. In this qualitative study, role theory was used to explore the dual relationships of law enforcement officers and opioid users caused by the naloxone program. Understanding the law enforcement officers' perspectives about naloxone can aid in policy development and training protocols, as described in Chapter 5. The implication from this research could lead to law enforcement departments more adequately preparing officers to administer naloxone, or a shift to partnering more frequently with medical first responders, such as emergency medical technicians (EMTs) and paramedics who would take on the responsibility of naloxone administration. Additionally, creating policies and training courses that meet the needs of law enforcement officers could lead to better well-being for the officers and better policing for the community.

This chapter provides a brief background of the current literature and addresses the gap in current knowledge, which will be expanded upon in Chapter 2. This chapter discusses the problem statement, introduces the research questions, summarizes the purpose and nature of the study, and provides an overview of the theoretical framework, definitions, assumptions, scope, delimitations, limitations, and significance of this study.

Background

In the United States, as well as other places in the world, opioid use disorder and opioid-related overdose deaths have become an epidemic. In response to the increase in opioid-related deaths, many law enforcement officers have started to administer naloxone, an opioid antidote, as part of their job responsibilities. The proven success of opioid overdose reversals has led to more law enforcement departments using naloxone in their daily responsibilities (Fisher et al., 2016; Lowder et al., 2020). The use of naloxone adds a caregiver responsibility to law enforcement officers, and it creates the dual role of law enforcer and caregiver. There is a gap in knowledge about how this dual role is perceived by law enforcement officers.

The role of the law enforcement officer changes from law enforcer to caregiver as the status of the opioid user changes from criminal to overdose victim. Traditional role interactions between law enforcement officers and opioid users have been adversarial since the law enforcement officer assumed the law enforcer role, and the opioid user assumed the criminal role. There has been a paradigm shift in the United States in how opioid users are viewed in society (Pacula & Powell, 2018). New requirements under Good Samaritan Laws have added protection for people who call for emergency help

during a drug-related medical crisis (Banta-Green et al., 2013; Latimore & Berstein, 2017). These laws provide opioid users with protection (varied by state), and these protections often prevent law enforcement officers from acting in a law enforcer role when responding to an opioid-related medical emergency; however, in the absence of a medical emergency, law enforcement officers are still required to enforce the law when dealing with opioid users. Naloxone administration, along with Good Samaritan Laws, create the dual role of law enforcer and caregiver for the officer to fill. Since naloxone administration is relatively new, and societal views and expectations about opioid users are continuously changing, new laws and policing policies are being introduced and revised. A combination of the dual roles of law enforcer and caregiver, coupled with misinterpretation or lack of knowledge regarding changing laws and policies, can lead to role conflict and role ambiguity for the law enforcement officer. Since the use of naloxone by law enforcement officers acting as medical first responders is a fairly new responsibility, more research on officers' perspectives of this caregiver role is needed (Murphy & Russell, 2020).

Problem Statement

Job duties of law enforcement officers involve many responsibilities and vary throughout a typical workday. Their role includes enforcing the law, de-escalating disputes, investigating crimes, assisting with emergencies (including medical emergencies, car accidents, and fires), and providing many services within the communities they serve. Throughout their day, they often assume the roles of law enforcer, peacekeeper, social worker, and information provider (Huey & Ricciardelli,

2015). With the opioid epidemic rapidly increasing in the United States, many law enforcement officers are also responsible to administer the opioid antidote naloxone to people in an opioid overdose crisis (Berardi et al, 2021; Carroll et al, 2020; Lowder et al., 2020; Rando et al., 2015). This additional responsibility creates a caregiver role for the law enforcement officer, which in turn creates the dual role for law enforcement officers since illicit opioid use and prescription opioid misuse are illegal. The dual role of law enforcer and caregiver for opioid users can lead to role conflict, and both role conflict and role ambiguity can lead to work-related stress (Suparman et al., 2020). Research conducted by Widyasrini and Lestari (2020) on nurses in caregiver roles showed that role conflict related to caregiving settings can lead to emotional fatigue, reduced well-being, and reduced performance. Currently, there is a lack of research focused on the law enforcement officers' perspectives regarding naloxone administration since this is a relatively new responsibility added to their role (Murphy & Russell, 2020).

The new caregiver role created by law enforcement officers administering the drug naloxone to people experiencing an opioid overdose crisis is a relatively new responsibility that began in 2013 after the National Drug Control Strategy published the successful results of a Massachusetts pilot program for law enforcement officer-administered naloxone (Office of National Drug Control Policy et al., 2013). Pilot programs were installed in multiple jurisdictions across the United States following the guidance of the Office of National Drug Control Policy's publication (Lurigio et al., 2018). By 2018, approximately 13% of law enforcement departments had introduced naloxone programs throughout the United States (Lowder et al., 2020). A total of 42

states introduced a naloxone program across 2,340 departments (Berardi et al., 2021; Lowder et al., 2020; Lurigio et al., 2018). As these programs continued to show success in preventing opioid overdose deaths, more departments adopted the approach (Fisher et al., 2016; Lowder et al., 2020; Rando et al., 2015).

In the past nine years, there has been significant literature published regarding the success of law enforcement administered naloxone to save lives during an opioid overdose (Berardi et al, 2021; Carroll et al, 2020; Lowder et al., 2020, Smyser & Lubin, 2018). Yet, 87% of United States police departments have not implemented a naloxone program (Lowder et al., 2020); so, there appears to be resistance from many departments to implement the naloxone program. Additionally, when Carroll et al. (2020) and Murphy and Russell (2020) surveyed law enforcement officers about their perspectives regarding naloxone, they found that law enforcement officers who administered naloxone more frequently had pessimistic attitudes about naloxone; overall, they gave lower endorsement ratings for naloxone to be administered by law enforcement officers. This reveals a misalignment between the success of naloxone to prevent opioid overdose deaths, and law enforcement officers' willingness to administer naloxone. The lower endorsement scores and pessimistic views may indicate that law enforcement officers are experiencing compassion fatigue and burnout from frequent administration of naloxone (Carroll et al., 2020). It may also indicate that law enforcement officers' view of naloxone administration conflicts with their view of the law enforcer's role. According to Widyasrini and Lestari (2020), the negative perspectives may indicate that the law enforcement officers are experiencing role conflict and a lack of social support to meet

their expectations. In sum, researchers are calling for a more intensive examination of the experiences of the law enforcement officers who assume the dual role of law enforcer and caregiver when administering naloxone as part of their job duties.

Purpose of Study

The purpose of this qualitative study was to explore how law enforcement officers who administer naloxone to opioid users describe their dual role of law enforcer and caregiver. This study used a generic qualitative approach (Patton, 2015). Semi-structured interviews with law enforcement officers who assume the dual role of law enforcer and caregiver by administering naloxone to opioid users were used to collect data.

Research Questions

RQ1: How do law enforcement officers who administer naloxone to people who use opioids describe their experience of the dual role of law enforcer and caregiver?

RQ2: How do law enforcement officers describe the role expectations of law enforcer and caregiver?

Theoretical Framework for the Study

Role theory was used to guide the study methodology and data analysis plan. Role theory posits that people recognize functions in society based on social norms and assign attributes to structure the roles within their society (Biddle, 1979). These attributes define the expected behaviors and set the expectation of interactions with people based on their role within society. According to Thakur and Chewning (2020), role theory combines the fields of psychology, sociology, and anthropology.

Role theory was used to explore the dual roles of law enforcement officers who act as law enforcers and caregivers, as the opioid user situationally switches between criminal and overdose victim. Role theory was selected as the theoretical framework for this study because it focuses on the characteristic behaviors of people in context with societal expectations (Biddle, 1979). The theory explores the expectations of the role by examining the way people perform to meet the expectations of their roles (Agastia, 2020). With the introduction of the law enforcement officer-administered naloxone, the role of the officer switches between law enforcer and caregiver. Additionally, an opioid overdose is a medical crisis that causes the social norm of the opioid user to switch from criminal to victim. This may lead to role ambiguity and role conflict for the law enforcement officers. The officers may develop frustration and ambivalence due to role overload from the numerous and complex demands that are placed on them (Fulambarker, 2020).

Additionally, law enforcement officers can experience role strain when they are expected to perform a task that they deem undesirable or not aligned with their expectations of the role (Biddle, 1986; Huey & Ricciardelli, 2015). Role theory focuses on the functional, structural, cognitive, symbolic, organizational, and interactional perspectives of roles in society (Biddle, 1979; Biddle, 1986; Thakur & Chewning, 2020). In this study, role theory was applied primarily to the role of the law enforcement officers, and secondarily, applied to the role of opioid users. This study used role theory, with a focus on cognitive role theory, to explore how law enforcement officers perceive

their dual roles as both law enforcers and caregivers for opioid users, and it guided the development of both the interview questions and data analysis plan.

Nature of Study

This study used a generic qualitative design with an interpretive approach. Interpretive research is grounded in social constructivism and assumes that knowledge is socially constructed by subjective interpretations of the person who lives the experience (Kahlke, 2014). This study used an interpretive approach to understand and describe (Cooper & Endacott, 2007) the experiences of law enforcement officers who assume the dual role of law enforcer and caregiver when administering naloxone to opioid users.

Thorne's interpretive description approach was used as a guide to structure this study. Interpretive description accounts for all perspectives about a shared phenomenon to honor the inherent complexity of human thought (Thorne, 2016). This approach was selected because the changing roles for the law enforcement officer (i.e., law enforcer and caregiver) and the opioid user (i.e., criminal and victim) are currently fluid and dynamic in the United States; therefore, the officers' perspectives may be complex and varying. Interpretive description is a tool that can honor the complexity of the officers' experiences and perspectives. This approach uses an objective and subjective dialectic process to overcome the shortcomings of traditional theoretical, social science methods to meet the individual and unique needs for clinical and practical application. It is both pragmatic and expansive. This approach allows for information that is both useful and actionable without the constraints of theoretical tradition (Patton, 2015). As such, it is a good fit to understand the nature of law enforcement officers' shared experiences with

dual roles created by the naloxone program, and to develop practical actions to reduce role conflict and work-related stress.

I used semi-structured interviews as my data collection method. This strategy uses an open rapport to show respect, openness, neutrality, and sensitivity with the interviewees (Patton, 2015). Data were collected from a homogenous sample of participants who experienced the shift from law enforcer, to law enforcer and caregiver, when naloxone was added to their job responsibilities. Interviews were conducted and coded until data saturation was achieved. Seven participants were needed to reach data saturation. To find study participants, I distributed invitations to acquaintances who have friends and family in law enforcement, posted invitations on social media accounts, and posted an invitation on the Walden Pool of Participants. A $50 Amazon gift card was provided to participants.

Definitions

Dual Roles: A situation where two or more relationships exist between a caregiver and the person for whom they are caring (Zur, 2007).

Naloxone: A medication to reverse the effects of opioids (Lloyd, n.d.). The pharmaceutical brand name of naloxone, and the term most often used by law enforcement and first responders, is Narcan.

Role Conflict: A situation where the demands of one role are in opposition to the demands of another role (van Rensburg & Zagenhagen, 2017).

Work-Related Stress: Physical, physiological, or cognitive symptoms that arise from the temporary process of adaptation related to the work environment (Thian et al., 2015).

Assumptions

The following assumptions must be recognized since I, as the researcher, may have made these assumptions during data collection. The assumptions include:

- The interviewees provided truthful and honest answers.
- The interviewees provided accurate descriptions of their lived experiences.
- The interviewees provided accurate descriptions of their interactions with opioid users, and their honest perspectives about the use of naloxone in their job duties.
- The interviewees understood the meaning of a dual relationship with brief definitions provided by the researcher.
- One-to-one, semi-structured interviews conducted via phone provided meaningful data, and data saturation was achieved.

Scope and Delimitations

The study participants included currently or previously employed law enforcement officers who work in the United States of America, were officers before the responsibility of naloxone was added to their role, and had to transition to using naloxone. All participants have administered naloxone at least once while working as a law enforcement officer, or were present while another officer administered naloxone. This study focused on the perspectives of law enforcement officers who have assumed

the dual role of law enforcer and caregiver by administering naloxone to opioid users. Research participants were excluded if they had never administered naloxone while working as a law enforcement officer, or if I had worked with the law enforcement officer on a first aid call as an emergency medical technician. Additionally, law enforcement officers whom I knew in my personal life were excluded.

Limitations

Potential barriers may include law enforcement officers not having enough knowledge on the subject matter, or having inaccurate knowledge on the subject matter to achieve data saturation or for meaningful data to be generated. Challenges to dependability may include personal bias related to my experiences of administering naloxone to opioid users as an emergency medical technician, and the desire to avoid potential secondary trauma for the law enforcement officers when asking them to describe traumatic experiences.

The role of a law enforcement officer requires the officers to meet organizational and professional expectations. This requires a high level of psychological stamina, and officers develop coping mechanisms to psychologically deal with their emotions in a way that meets the expectations of their role (Romosiou et al., 2019). The coping mechanisms may include compartmentalizing thoughts and emotions, which may lead to developing normative behaviors in many areas of their lives (Amiot et al., 2017). As such, it may be a challenge to get the law enforcement officers to share their thoughts, emotions, and perspectives, which may affect my ability to get thick, rich data during the interviews. Additionally, since the social expectation of the law enforcement officers’ roles and the

stigmas of opioid users are dynamic and changing as the opioid crisis expands, this research represents a snapshot in time of the perspectives of a small group of officers. This may create challenges with transferability.

Significance

Traditionally, law enforcement officers have had an adversarial relationship with opioid users (Selfridge et al., 2020). The introduction of the naloxone program has caused a paradigm shift in the socially expected interactions between law enforcement officers and opioid users. This has also created the dual relationship for the law enforcement officer who must now act as a law enforcer or a caregiver, based on the circumstances of the situation. Due to the significant increase in opioid misuse, there is a higher demand for the administration of naloxone. Opioid-related deaths have the highest occurrence rate of all drug-related deaths (Smyder & Lubin, 2018). Having law enforcement officers administer the naloxone has been effective in reducing opioid overdose deaths (Berardi et al., 2021; Carroll et al., 2020; Lowder et al., 2020, Rando et al., 2015). However, the use of naloxone creates additional responsibilities for law enforcement officers, and it creates the dual role of law enforcer and caregiver within the same group of people (i.e., opioid users), and sometimes for the same person (i.e., the same person may be arrested by the officer for illegal opioid-related activity and may also need naloxone resuscitation during a different interaction).

The goal of this research is to contribute to the body of knowledge about the dual role of law enforcement officers as law enforcers and caregivers. It is my hope that this research will lead to policy recommendations to aid in role conflict management

associated with the naloxone program, as well as training recommendations to help officers manage dual relationships in law enforcement. I intend to share these results with local law enforcement agencies or other groups, as well as publish in the scholarly literature to contribute to the well-being of law enforcement officers and better policing for the community.

Summary

In this study, I explored the perspectives of law enforcement officers who assume the dual role of law enforcer and caregiver by administering naloxone to opioid users. Semi-structured, one-to-one, phone interviews were conducted as the data collection method. A generic qualitative approach using interpretive description was employed to explore and explain the officers' perspectives.

Carroll et al. (2020) explained that law enforcement officers who frequently administer naloxone give low endorsement scores for the use of naloxone by law enforcement officers. Murphy and Russell (2020) explained that officers who frequently administer naloxone have pessimistic views of naloxone use. Additionally, after more than nine years of proven success of law enforcement officers to reduce opioid deaths through naloxone use (Fisher et al., 2016; Lowder et al., 2020; Rando et al., 2015), 87% of police departments in the United States have not introduced a naloxone program in their department (Lowder et al., 2020). There is a lack of research on the perspectives of law enforcement officers; more research could contribute to a better understanding of these statistics.

Chapter 1 focused on the background of the current literature, the literature gap, the problem statement, the research questions, the purpose and nature of the study, and an overview of the theoretical framework, definitions, assumptions, scope, delimitations, limitations, and significance of this study. Chapter 2 provides information on the literature search strategy, an overview of the opioid epidemic in the United States, and the description of role theory for the theoretical framework. Chapter 3 consists of the research design, the rationale for the design, methodology, the role of the researcher, and issues of trustworthiness. Chapter 4 focuses on the interview setting, data collection, data analysis, evidence of trustworthiness, and the results. Chapter 5 includes interpretations of findings, limitations of the study, implications, recommendations, and a conclusion to express the essence of the study.

Chapter 2: Literature Review

Introduction

While there is a significant amount of research regarding law enforcement officer naloxone training and the success of the naloxone program at preventing opioid overdose deaths, there is little research into the dual roles of law enforcer and caregiver that the officer must navigate. This study used role theory to explore the dual roles of law enforcer and caregiver, which officers assume when participating in the naloxone program. The insight gained in this study could lead to recommendations for law enforcement trainings, department policy changes, introduction and rollout programs, assistance for officers with dual role conflict management, more secondary support outreach and follow-up, and further research. This study utilized semi-structured interviews with law enforcement officers who have administered naloxone as part of their job responsibilities.

Chapter 2 begins with a discussion of role theory as the framework that guides the interview guide and data analysis plan. Then, I provide an overview of the history of the opioid epidemic in the United States (U.S.), a brief physiological explanation of opioid addiction, an explanation of how naloxone works, and the successful use of naloxone to reverse opioid overdose. This chapter discusses the history of law enforcement's use of naloxone, barriers to implementing a law enforcement naloxone program, and the challenges of dual roles created by the naloxone program.

Opioid use disorder and opioid-related overdose deaths have become an epidemic in America. Due to the rapid increase in opioid-related deaths, many law enforcement

officers have been assigned the added responsibility of administering the medication naloxone (brand name Narcan) to reverse the deadly side effects of illicit and prescription opioids. Success in reducing opioid-related deaths has led to more police departments using naloxone and more law enforcement officers carrying naloxone as part of their gear. The use of naloxone to reverse an opioid overdose adds an additional responsibility to law enforcement officers and it creates the dual role of law enforcer and caregiver. Little is understood about how this dual role impacts law enforcement officers.

The role of a law enforcement officer is diverse and can change several times in a day based on what is occurring at the scene to which they respond. Multiple roles and responsibilities must be assumed by the law enforcement officer to be successful at their job. These roles and responsibilities may include law enforcement, investigations, assisting with emergencies, preventing or de-escalating violent disputes, and community engagement. This requires the officers' role to switch between law enforcer, peacekeeper, social worker, knowledge worker, and community advocate (Huey & Ricciardelli, 2015). In response to the significant increase in opioid-related overdoses in the U.S., several police departments have added the responsibility of administering naloxone to people in opioid crisis (Berardi et al, 2021; Carroll et al, 2020; Lowder et al., 2020, Rando et al., 2015). Administering naloxone during the medical emergency of an opioid overdose requires the officer to also assume a caregiver role.

Historically, the use of illicit opioids and the misuse of prescription opioids have been criminal activities. Good Samaritan Laws have been implemented to protect individuals who call for help during a drug-related medical crisis (Banta-Green et al.,

2013; Latimore & Berstein, 2017). With the introduction of Good Samaritan Laws, many states prevent law enforcement officers from acting in a law enforcer role when responding to an opioid-related medical emergency; however, when no medical emergency exists, law enforcement officers must enforce the law when dealing with illicit opioids. This creates the dual role of law enforcer and caregiver for the officer. As more police departments across the U.S. begin to use naloxone, more policies and laws like the Good Samaritan Laws are introduced and revised. A combination of the dual roles of law enforcer and caregiver and misinterpretation or lack of knowledge regarding changing laws and policies can lead to role conflict and role ambiguity for the law enforcement officer. Role conflict and role ambiguity increase role stress, which may lead to a decrease in both role satisfaction and work engagement (Radulescu et al., 2020). The use of law enforcement officers as medical first responders to administer naloxone is a relatively new responsibility, and there is a lack of research on the law enforcement officers' perspectives of this new caregiver role (Murphy & Russell, 2020).

Literature Search Strategy

This literature review is comprised of published research from psychology, forensic psychology, and criminal science databases provided by Walden University. These databases include ProQuest, APA PsycArticles, Thoreau, PsycINFO, MEDLINE, and CINAHL Plus, as well as United States (U.S.), International, and medical websites, textbooks, and professional journals. Google Scholar was also used. General search terms most often used in ProQuest, General PsycArticles, and Thoreau were *law enforcement, officer, police, cop, opioid, naloxone*, and *Narcan*. The terms most often used in

MEDLINE and government websites were *opioid, opioid epidemic, opioid receptors, opioid overdose, naloxone*, and *Narcan*. Search terms most often used in APA PsycArticles and PsycINFO included *role theory, role conflict, role ambiguity, dual roles, dual relationships*, and *work-related stress*. Limiters and Boolean operators were applied as needed. Criteria for inclusion were peer-reviewed scholarly articles published in 2015 or later; however, exceptions were made for peer-reviewed articles if their work was seminal or were particularly germane to the historical overview of the literature review. Since there appeared to be no articles on dual roles associated with law enforcement and the naloxone program, articles that focused on dual roles for law enforcement officers in different situations and dual roles in other fields were included in the literature review. Textbooks on role theory and qualitative design were included as seminal work.

Theoretical Framework

Role theory was used as the theoretical framework for this study, which focuses on the characteristic behaviors of people in context with societal expectations (Biddle, 1979). Role theory was not founded by any single person; rather, it is a culmination of theoretical work over some time (Biddle, 1979). It examines both the expectations of the role and how people perform to meet the expectations of their roles (Agastia, 2020). According to Koenig and Eagly (2014), social interactions with people in a social role create experiences that help define and reinforce the social role, and people within the role will assume the traits and behaviors that society has defined. The role may form through consensus or conformity and may be further altered by role conflict and role-

taking (i.e., assuming the role of others; Biddle, 1986). Additionally, self-concept is rooted in and influenced by societal roles, and the social structures of roles influences a person's cognition and behaviors (Sluss et al., 2011). Role theory has examined the interconnections between the interactional, organizational, functional, structural, cognitive, and symbolic understanding of roles (Thakur & Chewning, 2020); thus, it bridges the fields of psychology, anthropology, and sociology, integrating concepts from these fields to understand human behavior. This study focuses on cognitive role theory, which explores the relationship between social expectations and the impact those expectations have on social conduct and behavior (Biddle, 1986). Role theory in this study was applied primarily to the role of the law enforcement officers, and secondarily applied to the role of the opioid user.

According to Biddle (1979), the five concepts form the structure of role theory are as follows. First, role theorists posit that roles are formed when some behaviors and characteristics are patterned within a social context. Second, social position is developed when a group of people create a common identity through shared experiences. Third, both the person in the role and the members of the community are aware of the role expectations; therefore, the role is governed by the expectations. Fourth, failure to meet role expectations of a social system will likely result in consequences, so behaviors within the role persist to avoid consequences. Finally, roles must be learned through socialization, and a person may enjoy or not enjoy the role in which they are cast. However, role theorists disagree over how the expectations of roles are formed (i.e.,

norms, beliefs, or preferences) and this disagreement over modality of expectations has led to different versions of role theory in the literature (Biddle, 1986).

When new responsibilities are added to a role, they need to be socialized and accepted as expectations of the role. There may be misalignment or disagreement during this acceptance process. The law enforcement officers' role is complex. Police reformers, including social advocates, academics, political figures, and internal administrators, have shifted the expectations of the law enforcement officer role over the past 40 years (Gau & Paul, 2019). Cognitive role theory explores how the perceived expectations of others can influence behaviors (Biddle, 1986). Changes in role expectations and role complexity can lead to psychological distress (Kimberley & Osmond, 2011). As Biddle (1979) explained, both the person in the role and the members of the community are aware of the expectations that govern the role. When changes are made to role expectations, the person in the role and the members of the community may not be in alignment as far as their perceptions or acceptance of these changes. When a new requirement is added to the role, such as the use of naloxone, expectations of both the person in the role and the community need to form. The new responsibility can create ambiguity and uncertainty in the expectation of the role. Role ambiguity and role conflict cause people to feel that they are not fulfilling the expectations of their role, which can lead to tension within the role's social system (Radulescu et al., 2020). Role expectations that are not aligned with an officer's perspectives or beliefs can lead to role conflict and psychological discomfort (Huey & Ricciardelli, 2015; Torres et al., 2018). Over time, more expectations may be added to a role and this can lead to role overload (Biddle, 1979). Adding additional

responsibilities increases the likelihood of role overload, role conflict, and role ambiguity (Radulescu et al. 2020).

Role conflict arises when the expectations of the role are inconsistent with the individual's view of their role; this may lead to dissatisfaction, work-related stress, and subpar performance (Rizzo et al., 1970). Intra-role conflict occurs internally when a person experiences cognitive dissonance between their expectation of the role and the performance of the role (Brzezinska, 2020). Inter-role conflict occurs externally when a person's actions conflict with the institutional expectations of the role (Brzezinska, 2020). When a person experiences role overload, role conflict, and role ambiguity, the stress is compounded, and the person is more likely to experience dissatisfaction and have poor performance outcomes (Radulescu et al., 2020). Role overload and role conflict are easy to observe in law enforcement because within the context of their role, situational changes occur often and rapidly. There are complex and numerous expectations on the role of law enforcement officers that can cause role overload, leading to frustration and ambivalence (Fulambarker, 2020). A better understanding of how naloxone administration contributes to role conflict, role ambiguity, and role overload is needed to reduce negative outcomes for those in the law enforcement role.

Literature Review

The Opioid Epidemic in the United States

The opioid epidemic continues to increase at a significant rate, and there is a high demand for effective naloxone administration. Opioid use disorder is a global health crisis (Banta-Green et al., 2017; Rando et al., 2015; World Health Organization, 2020).

There are approximately 500,000 opioid-related deaths per year around the world, with approximately 30% (150,000) due to overdose, and 70% (350,000) due to opioid-related health complications (World Health Organization, 2020). Illicit opioids, including heroin and pharmaceutical opioids such as fentanyl, oxycodone, methadone hydrocodone, also known as opioid analgesics, have led to a significant increase in overdose deaths (Ray et al., 2015; Wang, 2019). These illicit opioids continue to enter the U.S. illegal drug market at an alarming rate.

In addition to illicit opioids, prescription opioids are also contributing to the epidemic. The U.S. consumes approximately 80% of the world's opioid supply through prescription and illicit activities (Rummans et al, 2018). According to Hadland et al. (2019), 40% of opioid-related deaths in the U.S. involve prescription opioids, and most people with opioid abuse disorder had their first opioid encounter through prescription opioid use. About one-third of U.S. adults use prescription opioids, and more Americans use opioids than tobacco (Rummans et al, 2018). In 2015 in the U.S., there were approximately 245 million opioid prescriptions dispensed by pharmacies, not including refill prescriptions (Skolnick, 2018); although the rate of opioid prescriptions has been decreasing over the past decade, opioids are still prescribed at a rate of three times higher than the amount prescribed in 1999 (Hadland et al., 2019). Prescription opioids are responsible for more deaths than heroin and cocaine combined (Davis et al., 2014). Abuse and illegal diversion of prescription opioids increase the risk of opioid-related deaths. In the U.S., 4% of adults (>13 million) abuse opioids (Skolnick, 2018), and over 130 people die every day from opioid-related overdose (Bluthenthal et al., 2020).

Between 1999 and 2017, the U.S. experienced 399,230 reported opioid deaths (Nath et al., 2020). This annual rate of death has surpassed the number of deaths at the peak of the HIV and AIDS epidemic (Davis et al., 2017). Based on the current trends in the data, the opioid epidemic is continuing to worsen.

Opioids continue to be the primary compounds that contribute to overdose deaths. Opioid-related deaths continue to outpace other drug-related fatal overdoses (Smyser & Lubin, 2018). According to the Center for Disease Control (2020), in 2018 the U.S. experienced 67,367 deaths related to drugs, and 69.5% (46,802) of those deaths involved opioid use. Statistics also show a 600% increase in overdose deaths since the mid-1980s (Davis et al., 2014), and a 200% increase between the years 2000 and 2014 (Saucier et al., 2016; Simmons et al., 2016). There are no indications that the opioid epidemic is decreasing.

Opioid overdose deaths are categorized as fatal poisonings. U.S. statistics show that 90% of all fatal poisonings are opioid-related (Davis et al., 2014), and two-thirds of these deaths are related to synthetic opioids like fentanyl (World Health Organization, 2020). According to Hedegaard et al. (2020), in the United States, deaths related to synthetic opioids such as tramadol, fentanyl, and fentanyl analogs, excluding methadone, have increased from 0.3 per 100,000 in 1999, to 9.9 per 100,000 in 2018. Deaths related to opioids classified as natural and semisynthetic were 1.0 per 100,000 in 1999, and 3.8 per 100,000 in 2018, with a peak of 4.4 in both 2016 and 2017 (Hedegaard et al., 2020). Methadone deaths were 0.3 per 100,000 in 1999, tripled to 0.9 per 100,000 in 2018, and hit a peak of 1.0 per 100,000 in 2017; heroin deaths increased from 0.7 per 100,000 in

1999, to 4.7 per 100,000 in 2018, with a peak of 4.9 per 100,000 in 2017 (Hedegaard et al., 2020). The synthetic opioid fentanyl is 100 times more potent than morphine, and the synthetic opioid carfentanyl is 10,000 times stronger (Berardi et al., 2021). Synthetic opioid-related deaths rose from 6.2 to 9.9 deaths per 100,000 between 2016 and 2018 (age-adjusted; Carroll et al., 2020). Synthetic opioids are often mixed with other drugs to increase the high and provide drug dealers with a superior product (Berardi et al., 2021). Most people using the opioids are unaware of the type or amounts of synthetic opioids added, making overdose likely.

Synthetic opioids have become the primary cause of opioid overdose. Between 1999 and 2015, the Center for Disease Control and Prevention reported 596,699 drug-related deaths; most were opioid-related (Seth et al., 2018). Heroin-related and synthetic opioid-related deaths (primarily fentanyl) increased 20% and 73%, respectively, between 2014 and 2015 (Lambdin et al., 2018; Skolnick, 2018). In the U.S., opioid-related deaths have become the leading cause of accidental deaths, well surpassing automobile accidents (Bluthenthal et al., 2020; Kirane, et al., 2016; Purviance et al., 2017; Saucier et al., 2016), and are identified as the leading cause of preventable deaths (Rando et al., 2015). The increasing influx of synthetic opioids into the U.S. illicit drug market will continue to elevate these statistics.

Opioid use disorder continues to be a growing problem. Opioid misuse impacts all age, sex, socioeconomic and ethnic groups (Rummans et al, 2018). Opioid use disorder is characterized as a chronic illness involving addiction, remission, and relapse (Wang, 2019). According to the World Health Organization (2020), 5.3% of the world's

population between the ages of 15 and 64 years (269 million people) used drugs in 2018 and 58 million of these people used opioids at least once. Globally 35.6 million people have opioid use disorder (World Health Organization, 2020) and approximately 2.5 million of those people live in the U.S. (Lambdin et al., 2018). This is a large number of people that will likely need naloxone intervention one or more times.

The continued increase in opioid abuse has had an impact on the U.S. emergency response and healthcare systems. The U.S. has seen increased emergency response calls, more opioid cases in emergency departments, higher admission rates for opioid treatment, and increased hospitalizations (Kansaga & Cohen, 2018; McClellan, et al., 2018). Opioid use accounts for over 750,000 emergency room visits per year (Skolnick, 2018). Additionally, from 2004 to 2013 there was a 385% increase in neonatal intensive care admission for infants born experiencing opioid withdrawal (Skolnick, 2018). There has also been a rise in intravenous drug use viral transmission including human immunodeficiency virus (HIV) and hepatitis C (Bluthenthal et al., 2020; Kansaga & Cohen, 2018; Skolnick, 2018). This puts a strain on healthcare resources and increases the cost of healthcare. In the U.S., tens of billions of healthcare dollars are spent on opioid use disorder annually (Wang, 2019). As of 2018, the annual cost on criminal justice, health care, and productivity lost related to opioid use was $78 billion (Rummans et al, 2018). Opioid use disorder is the most significant and challenging health crisis in the U.S. (Lurigio et al., 2018); however, only about 11% of Americans with some form of substance abuse disorder (i.e., drug or alcohol) can gain access to treatment (Davis et al, 2017). This leaves a lot of people without treatment and their primary institutional

interactions related to their opioid abuse will be with law enforcement. In the U.S., about 20% of people with opioid use disorder are involved in the criminal justice system (Joudrey et al., 2019). This is only a portion of opioid users that have had law enforcement involvement since opioid-related medical emergencies are protected under Good Samaritan laws. Additionally, there has been a recent spike in opioid use and overdose associated with the COVID-19 pandemic (White et al., 2021). Contributing factors to this spike include isolation, unemployment, anxiety due to uncertainty, depression, limited access to treatment centers and medication, and fear of catching the COVID-19 virus when seeking treatment (White et al., 2021). The increase in opioid abuse will cause a further increase in the demand on the U.S. healthcare systems and criminal justice systems.

Opioid Mechanism in the Body

Opioids have specific binding mechanisms in the human body. When opioids enter the body, they target the opioid receptors to produce a euphoric effect and reduce pain (Joudrey et al., 2019). Opioid receptors are found in the skin, brain, gastrointestinal system, and spinal cord (Kosten & Baxter, 2019; Wang, 2019). Opioids bind to the delta-, kappa-, and mu-opioid receptors in the body (Wang, 2019). Opioids bind to the delta-opioid receptors in the basal ganglia causing an anxiolytic effect, they bind to the kappa-opioid receptors in the brain's aversion areas of the hypothalamus and periaqueductal gray to induce sedation and dysphoria, and opioids bind to the mu-opioid receptors in the cerebral cortex, periaqueductal gray, and thalamus, which causes both euphoria and

physical dependence (Wang, 2019). Opioid use increases in an individual as tolerance for the euphoric effects builds.

Opioid toxicity leads to death through respiratory arrest. Repeated exposure to opioids damages the opioid receptors in the brain and other organs and changes the brain's neurobiological pathways (Kosten & Baxter, 2019; Wang, 2019). When opioids bind to the mu-opioid receptors in the brain, they affect the area of the brain that drives respiration (Wang, 2019). When the respiratory drive is suppressed the level of breathing becomes inadequate and does not supply enough oxygen to the brain (Joudrey et al., 2019). Repeated exposure to opioids damages the receptors (Wang, 2019). The damage to these receptors reduces the euphoric effects of opioids (Joudrey et al., 2019), therefore more opioids are needed to produce the same level of euphoria. As tolerance increases, so do cravings and withdrawal symptoms (Wang, 2019). The respiratory drive begins to adjust to the higher doses of opioids, but will eventually fail during an overdose (Wang, 2019). This depressive effect on respiration paired with decreased oxygen in the brain and the sedation effect on chest muscles leads to respiratory arrest and death (Heavy et al., 2017; Wagner et al., 2016). Post-mortem hair analysis has shown that people who have voluntarily or involuntarily abstained from opioid use, such as rehab or incarceration, are more likely to die of an opioid overdose because their euphoric effect tolerance remains high, but their respiratory tolerance is reduced during the abstaining period (Joudry et al., 2019). A seminal study in Washington State showed that the leading cause of death of incarcerated individuals within 2 weeks of release was overdose (Joudry et al., 2019). In the 2 weeks post-release, these individuals were 129 times more

likely to die of a drug overdose than the general population (Joudry et al., 2019). The opioid toxicity is due to damaged receptors causing a high euphoric tolerance but to a drop in the person's physical tolerance. Therefore, the person requires a high dose of opioids to feel the euphoric effects, but their physiological protective factors, especially for the lungs, fail at these high doses since their physical tolerance has decreased during their period of absence. The failure of physiological protective factors increases the chance of a fatal overdose.

For a person that has damaged their opioid receptors through opioid abuse, their body negatively responds when detoxing from opioids and acute opioid withdrawal syndrome will occur. When a person with opioid tolerance stops taking opioids, the damaged locus coeruleus in the brainstem will release high levels of cyclic adenosine monophosphate leading to neurobiological imbalance and acute opioid withdrawal syndrome (Kosten & Baxter, 2019). Withdrawal symptoms include bone pain, body aches, chills, tachycardia, stomach cramping, vomiting, diarrhea, insomnia, rhinorrhea, tearing, sweating, skin itching, anxiety, depression, and agitation (Bluthenthal et al., 2020; Kosten & Baxter, 2019; Wang, 2019). In a study by Bluthenthal et al. (2020) that analyzed 814 participants withdrawing from regular opioid use, 85% (n=690) reported withdrawal symptoms as a chronic health problem. Of the 690 participants that reported withdrawal symptoms, almost 67% experienced chronic symptoms monthly and more than 33% experienced them weekly (Bluthenthal et al., 2020). Extreme or very high levels of pain were the main chronic symptom identified by 57% of the participants

(Bluthenthal et al., 2020). The high level of chronic withdrawal symptoms increases the risk for relapse.

The mu-opioid receptor plays an important role in psychology. The mu-opioid receptor is part of the brain's mesolimbic reward system (Kosten & Baxter, 2019; Wang, 2019). These receptors show neural sensitivity to social hedonic capacity and social rejection (Wang, 2019). A study by Cinque et al. (2012) showed the mu-opioid receptors are significant to anhedonia and social attachment. Wang (2019) explained that when opioids bind to the mu-opioid receptor it simulates immediate reward that interferes with the natural reward mechanism of the brain. Since opioids provide the reward mechanism to the brain, a person with opioid use disorder does not need to rely on social acceptance and hedonistic wellbeing to achieve neurological rewards. The increase in social anhedonia and a decrease in social functioning that should trigger neural sensitivity and a desire to change is diminished due to the opioids stimulating the reward mechanism.

Damage to the kappa- and delta-opioid receptors creates a mechanism for relapse. Dysphoria is caused by the anti-reward mechanism in the brain and is associated with the kappa-opioid receptor (Wang, 2019). Repeated opioid use will lead to the kappa-opioid receptor increasing the release of corticotropin-releasing factors, which increases depression (Wang, 2019). The hypothalamic-pituitary-adrenal axis is the primary neuroendocrine mechanism to reduce stress (Jiang et al., 2019). When there is an overproduction of corticotropin-releasing factor there is a decrease in the ability to mitigate stress and an increased risk of depression (Jiang et al., 2019). Damage to the delta-opioid receptors also leads to a state of depression and increase anxiety (Wang,

2019). When a person is abstaining from opioids and therefore not triggering the mu-opioid receptor reward system, they are susceptible to social rejection and reduced hedonic wellbeing. Therefore, even after the acute withdrawal symptoms have subsided, the increased depression and anxiety coupled with the damaged reward mechanism increases a person's risk for relapse.

Naloxone Intervention to Reverse Opioid-Related Overdose

Medication is used to help a person withdraw from opioids and maintain abstinence. There are three classes of medical treatment for opioid use disorder. These groups are full agonists, which block the mu-opioid receptors; partial agonists which, partially interrupt binding at the mu-opioid receptors; and antagonists which, rapidly target all subtypes of opioid receptors in the brain (Wang, 2019). Full and partial agonists bind with the mu-opioid receptor to simulate opioid use and to reduce the withdrawal side effects (Wang, 2019). Drugs such as methadone and buprenorphine are used to treat chronic opioid users during their recovery process (Bruneau et al., 2018; Skolnick, 2018). These drugs are scheduled drugs, which means that they can lead to addiction and abuse. Medical supervision is required for people using this type of medical treatment. These medications continue to produce an elevated euphoria while interrupting the withdrawal symptoms (Wang, 2019). These drugs can be combined with naloxone as part of a long-term treatment approach (Skolnick, 2018; Wang, 2019); however, current statistics show that most opioid users treated with the buprenorphine and naloxone combination abandon treatment after 3 months, and 57% leave within the first 2 months due to the high relapse rate (Skolnick, 2018). Additionally, there is a waitlist for access to the drug

buprenorphine to treat opioid addiction (Carroll et al., 2020). This presents challenges with long-term opioid treatment and the relapse rate continues to be high.

Naloxone is a medication primarily used during an acute opioid overdose. Naloxone is an opioid antagonist that was patented in 1961 (Cordant Health Solutions, 2017). It is derived from morphine and has a high affinity for the mu- and kappa-opioid receptors (Cordant Health Solutions, 2017; Wagner et al., 2015; Wang, 2019; World Health Organization, 2020). It competes with opioids in the brain to knock them off opioid receptors, which has the pharmacological effects of preventing respiratory depression and oxygen deprivation to the brain (Wang, 2019). Naloxone works rapidly to reverse acute respiratory distress and allow breathing to return to a normal state (Wagner et al., 2015; World Health Organization, 2020). When naloxone is administered, the high affinity to the receptors removes opioids from the receptors and prevents rebinding. Opioid withdrawal occurs within minutes.

The use of naloxone causes rapid opioid withdrawal but has no other known side effects. It has been patented for medical use for over 45 years and is a nonscheduled drug, meaning that the drug does not lead to addiction or abuse (Dahlem, et al., 2017; Skolnick, 2018). Rapid opioid withdrawal can cause agitation and a violent response in a person given naloxone. In a study by Heavey et al. (2017) that examined 800 cases of opioid overdose reversal with naloxone, 4.4% (n=35) showed anger and 2% (n=16) were combative after receiving naloxone due to rapid withdrawal. Naloxone does not have negative side effects, so it is safe to administer (Cordant Health Solutions, 2017; World

Health Organization, 2020). If naloxone were given to a person not in opioid overdose by mistake, there would be no medical complications for the person.

Naloxone is designed to be easily administered. Routes of naloxone administration include intermuscular, intravenous, subdermal, or intranasal transmission (Dahlem, et al., 2017). Naloxone kits used by law enforcement often contain 1 or 2 syringes of 2 ml naloxone (1mg/1ml) and a mucosal atomizer nasal adapter or a fully configured nasal spray (Narcan™ Nasal Spray) containing 4mg/0.1ml (Skolnick, 2018). A study by Chou et al. (2017) used three (3) randomized controlled studies and four (4) cohorts to compare the most effective routes of naloxone administration. The data collected by Chou et al. (2017) showed that a dose of 2mg/1ml was equally effective if given via intranasal or intramuscular routes. Lower doses were less effective in intranasal routes (Chou et al., 2017). For the kits with the syringes, the nasal adapter is attached to the syringe. The naloxone is sprayed into the nasal cavity with equal portions applied to each nostril. In a study by Ray et al. (2015) of 117 law enforcement officers who underwent 20-25 minutes of naloxone training, 89.7% of the officers responded that naloxone was not hard to administer. Ease of use and no side effects make naloxone a good choice for emergency response use.

Naloxone is a fast-acting medication but has a limited half-life. Naloxone will begin to reverse the effects of opioids in 1 to 10 minutes from the initial introduction to the body (Dahlem et al., 2017). Naloxone has a 60-minute serum half-life and can affect the body for 30-90 minutes before it is metabolized (Dahlem et al., 2017; Lynn & Galinkin, 2018). Due to the half-life time, there is a risk of re-narcotization overdose after

administering naloxone (Lynn & Galinkin, 2018). This means that if there are high doses of opioids or synthetic opioids in the body, they can rebind to the opioid receptors after the naloxone is metabolized and overdose syndrome can reoccur. Therefore, transporting a person who has received naloxone to a hospital is recommended.

Opioid overdoses are often witnessed creating an opportunity to seek help. Most potential opioid-related overdoses are witnessed by other opioid users, family, or bystanders who can intervene by calling 911 (Ray et al. 2015). According to Latimore and Bergstein (2017), approximately 70% of chronic drug users have witnessed an overdose. Many witnesses do not call for help due to a lack of knowledge on the signs and symptoms of an opioid overdose or fear of consequences including the arrest of themselves or the person in crisis (Latimore & Bergstein, 2017). Laws that increase the criminality of opioid use, such as increased penalties when crimes involve drugs and homicide charges related to fatal overdoses, creates a barrier to seek help when overdosing or witnessing an overdose (Carroll et al., 2020; Davis et al., 2017). The increased criminality has the negative consequence of causing avoidance of harm reduction programs including clean needle programs, the use of safe injection sites, and calling for law enforcement to administer naloxone (Childs et al., 2021). This can lead to more overdoses and an increased spread of intravenous drug-related viruses (Davis et al., 2017). This has a negative impact on harm reduction programs, including naloxone programs.

Delays in seeking help for a person in opioid overdose can have deadly consequences. Many states now have Good Samaritan Laws that provide a variety of

protection for people calling for help during an overdose (Carroll et al., 2020). Depending on individual state statutes, the Good Samaritan Laws provide a level of protection for both the victim and bystanders who call for help from arrest, parole violations, or additional charges, which may have previously been barriers for calling for help when a person was in overdose crisis (Carroll et al., 2020). Increasing legal protection for the opioid user and witnesses through Good Samaritan Laws needs to be publicized. Law enforcement officers' historical and sometimes current stigma of opioid users has led to negative interactions between officers and opioid users, and this creates a barrier for the user to seek help from law enforcement (Ezell et al., 2021; Selfridge, Mitchell et al., 2020). Once the perceived risk of criminality is removed, the barrier to call for help should be reduced (Pacula & Powell, 2018). Reducing barriers to seek help through Good Samaritan Laws will allow officers to reach more people in opioid overdose.

Naloxone is an easy to administer, safe and effective drug with no side effects and is not addictive. This makes naloxone a great resource for first responders, law enforcement officers, and laypersons to reverse opioid overdose. Additionally, amenability to the use of naloxone as an intervention is high because respiratory distress resulting in death usually occurs about an hour after exposure to opioids, so there is adequate time to assess and respond (Banta-Green, et al., 2013; Davis et al, 2015). This has led to recommendations for all law enforcement officers to carry naloxone during patrol.

Law Enforcement Officer Naloxone Programs

Part of the law enforcement officers' role is to respond to medical emergencies. Law enforcement officers are a critical part of the pre-hospital medical response network of care (Lurigio et al., 2018). Based on the need for rapid administration of naloxone to reverse an opioid overdose, law enforcement officers are an ideal responder to administer naloxone. When there is an emergency call for a suspected opioid overdose, law enforcement officers are often the first trained responder to arrive (Ray et al., 2015; White et al. 2021). Equipping law enforcement officers with naloxone and properly training them to administer the medication increases the opioid user's chance of survival (Ray et al., 2015). According to Davis et al. (2017), law enforcement and corrections officers are more likely to interact with a person with opioid use disorder than any other public official or medical care provider. In a survey conducted with 117 law enforcement officers, 97.4% had responded to a call for an opioid overdose at some point in their career, 93.2% had responded to an opioid overdose in the past 12 months, and 49.6% had responded to an opioid overdose in the past 30 days (Ray et al., 2015). Rapid response to an opioid overdose is critical to successfully reversing the overdose.

Law enforcement officers' rapid response time is due to the number of law enforcement officers on duty and their geographic region of coverage. On average, the ratio of law enforcement officers to emergency medical technicians (EMT) is 3:1, and the ratio of law enforcement officers to paramedics is 10:1 (Lurigio et al., 2018; White 2021). In many non-urban areas, EMTs are often volunteers and are on call, but not actively on duty. Therefore, when an emergency call comes in, they must first respond to

the squad building to retrieve their ambulance and then respond to the emergency. This can delay care. According to Davis et al. (2014), law enforcement officers arrive to overdose patients on average 5 to 10 minutes before paramedics. This is specifically important in rural communities where paramedics may have a long response time due to a large geographic response area (Davis et al., 2014). In non-urban areas, paramedics are usually associated with a hospital or county and have a very large geographic area to cover, including multiple towns. Research by Ray et al. (2015) showed that before naloxone, law enforcement officers felt frustrated when they were witnessing a person die from an opioid overdose while waiting for medical personnel to arrive. Law enforcement officers' ability to have a rapid response time to an opioid emergency increases the potential for naloxone intervention and makes law enforcement officers a key link in the chain of survival (Lurigio et al., 2018). In addition to increased response time, allowing law enforcement officers and emergency medical technicians to administer naloxone frees up paramedic resources to focus on other life-threatening emergency calls (Davis et al., 2014). Naloxone equips law enforcement officers with a safe and effective life-saving opioid antidote that is easy to administer.

Recognizing the need for prompt administration of naloxone and observing law enforcement officers' rapid response time, pilot programs for law enforcement administered naloxone were started. These pilot programs in Massachusetts showed significant success (Rando et al., 2015). In 2013, a recommendation was made by the Office of National Drug Control Policy for all law enforcement officers to carry naloxone in their patrol vehicles (Lurigio et al., 2018; Beradi et al., 2021). The American College

of Medical Toxicologists and the National Association for Drug Diversion Investigators have recommended that all emergency responders who could respond to opioid-related overdoses should carry naloxone and be trained to administer the drug (Beradi et al., 2021; Purviance et al., 2017). In 2014, the U.S. Attorney General recommended all law enforcement agencies be equipped with naloxone (Nath et al., 2020). Following these recommendations, several law enforcement departments in the U.S. started implementing a law enforcement officer-administered naloxone program (Davis, et al., 2014; Lurigio et al., 2018). Law enforcement officers were provided training on identifying an opioid overdose and administering naloxone, they were provided naloxone kits, and were required to document and report naloxone administration and outcome into a database for analysis (Rando, et al., 2015). Most law enforcement departments in the U.S. did not follow the recommendations to implement a naloxone program.

Administering naloxone creates a new job responsibility for the law enforcement office. Training has been shown to increase the law enforcement officers' knowledge and confidence in overdose management (Beradi et al., 2021). Evidence from the U.S. has shown that officers who administer naloxone significantly reduce opioid overdose deaths (Rando et al., 2015; Fisher et al., 2016) and the officers have increased job satisfaction (Lurigio et al., 2018). Since naloxone is a prescription medication, law enforcement officers must operate under medical protocols and standing orders from a medical professional who has prescribing authorization, such as a doctor or nurse practitioner (Davis et al., 2015). This level of medical administration responsibility is the same as medical standing orders for EMTs and paramedics.

Law enforcement officer-administered naloxone programs have continued to spread. By 2015 a total of 11 states in the U.S. had incorporated naloxone administration into law enforcement officers' scope of practice by either statute or regulation (Davis, et al., 2015). Additionally, another 10 states provided legal protection for law enforcement officers to carry and administer naloxone without specifically requiring the use of naloxone in the officers' scope of responsibility (Davis, et al., 2015). As of January 2016, a total of 31 states allowed law enforcement officers to administer naloxone and the practice was adopted by 670 law enforcement departments (Wagner, et al., 2016). As of 2018, approximately 2,340 (13%) of U.S. law enforcement departments in 42 states introduced a naloxone program (Berardi et al., 2021; Lowder et al., 2020; Lurigio et al., 2018). These naloxone programs continue to show success in reversing opioid overdoses (Berardi et al., 2021; Fisher et al., 2016; Lowder et al., 2020; Rando et al., 2015). Based on this trend, the expectation is the spread of law enforcement administered naloxone programs to more departments.

There is a significant amount of research that shows the positive effects of law enforcement administered naloxone programs. A study conducted by Rando et al. (2015) showed a successful implementation in Ohio. Data collected from 2011 to 2014 showed that opioid-related deaths were increasing by 1.5 ($\pm$ 0.3) deaths per quarter ($P < 0.002$) before the implementation of the naloxone program and decreased by -4.0 ($\pm$ 1.0, $P < 0.025$) deaths per quarter after implementation (Rando et al., 2015). A study by Heavey et al. (2017) also demonstrated a successful implementation of a naloxone program in Erie County, New York. Data collected between 2014 and 2016 documented 800 naloxone

opioid reversal attempts by first responders including law enforcement officers (Heavey et al., 2017). Responders reported that 281 (35.1%) of the people had a faint or absent pulse, 736 (92%) had reduced or absent breathing, and 780 (97.5%) were unresponsive or showing signs of sedation (Heavey et al., 2017). The study showed that in 800 overdose reversal attempts, 653 (81.6%) were successful, 50 (6.3%) were unsuccessful, and 97 (12.1%) were unknown due to lack of follow-up with the hospital after transport (Heavey et al., 2017). A case study at Massachusetts General Hospital showed another successful naloxone program implementation. In June of 2016, law enforcement officers working in the hospital security department were provided naloxone to use on people in opioid crises who were outside of the hospital but on hospital property (Driscoll & Michelman, 2016). Opioid users have been known to use drugs in areas they perceive as "safe havens", such as hospital bathrooms and parking lots, in case they overdose and require care (Driscoll & Michelman, 2016; Driscoll & Michelman, 2017). Within 7 months, officers encountered 5 people in opioid overdose and had a 100% success rate in opioid overdose reversal using naloxone (Driscoll & Michelman, 2016; Driscoll & Michelman, 2017). Janssen et al. (2020) showed a 94.6% success rate of law enforcement naloxone administrations on 184 individuals between 2015 and 2017. In a study by Dahlem et al. (2017), almost 20% of individuals (6 out of 31) who were saved with naloxone entered treatment via a law enforcement referral program. Wagner et al. (2016) observed one-third (3 out of 9) of naloxone patients enter treatment through an officer-assisted referral program. According to White et al. (2021), opioid users who have had an opioid reversal with naloxone are more likely to seek opioid treatment if a law enforcement officer

discusses treatment options with them or refers services. The use of naloxone coupled with referral services allows law enforcement officers to combat the opioid epidemic.

The studies listed in the previous paragraph are a sampling of the literature regarding successful law enforcement naloxone programs. In the nine years since the Office of National Drug Control Policy recommendation, there has been significant research on the law enforcement officers' success in saving lives with naloxone (Berardi et al., 2021; Carroll et al., 2020; Lowder et al., 2020; Smyser & Lubin, 2018). With the increasing fatality rate of opioid overdose and the success of law enforcement administered naloxone it would appear that there is an effective system to significantly reduce opioid deaths; however, the 2,340 law enforcement departments that have implemented a naloxone program make up only 13% of police departments in the U.S. (Lowder et al., 2020). It is fair to question why there has not been widespread adoption of the naloxone program across all law enforcement departments.

Many departments appear to be resistant to implementing a naloxone program. This indicates a misalignment between program success and adoption of the program by law enforcement departments. Barriers to implementing a naloxone program include cost, officers' knowledge and ability, community stigma towards opioid users, and liability concerns (Banta-Green et al., 2013; Childs et al., 2021; Davis et al., 2017; Deonarine et al., 2016; Ezell et al., 2021). Liability and training concerns are not supported by the literature. There is significant literature on the success of officer naloxone training programs (Banta-Green et al., 2013; Berardi et al., 2021; Carroll et al., 2020; Dahlem et al., 2017; Davis et al., 2015; Wagner et al., 2016) and a review of 220 law enforcement

agencies in 24 states found no legal actions brought against officers for the use of naloxone (Davis et al., 2015). Additionally, the cost of naloxone has decreased as of 2019 when the U.S. Food and Drug Administration (FDA) approved the first generic form of naloxone (FDA, 2019). According to the Bureau of Justice Assistance U.S. Department of Justice (BJA; n.d.), the cost of a naloxone kit is between 22 and 60 USD; however, stigma to opioid users remains a barrier to spending tax dollars on naloxone programs (Selfridge, Greer et al., 2020). Another factor to explore is law enforcement officers' perspectives and willingness to administer naloxone.

Most law enforcement officers in the U.S. have not assumed the responsibility of administering naloxone. Berardi et al. (2021) examined the disconnect between the success of the program and the low rate of law enforcement department adoption using implementation science. A main driver in the disconnect was identified as the officers' willingness the carry naloxone. Willingness of the law enforcement officer to carry naloxone was broken down further into personal liability of the officer, lack of confidence on when to use naloxone, inadequate knowledge of policies regarding naloxone use, too burdensome to carry, difficulty in checking it out from headquarters, and the perspective that naloxone should be the responsibility of medical professionals, including EMTs and paramedics (Berardi et al., 2021). Many officers surveyed and interviewed incorrectly believed that the naloxone was only to be used for personal safety or to save their partner and that administering it to a civilian in overdose was against policy (Beradi et al., 2021). Several officers saw this as a Catch-22 (Beradi et al., 2021). They believed that administering it to civilians would go against policy and use up their

supply if they or their partner were exposed and if they administered it to a civilian against policy and the person died, they would be liable (Beradi et al., 2021). If they chose to withhold it based on their belief that they were following policy and a civilian died of an overdose while they withheld the naloxone, they could be legally liable for allowing a person to die (Beradi et al., 2021). Therefore, not carrying naloxone avoided this conundrum. Beradi et al. (2021) pointed out that as officers begin to recognize that the chance of them or their partner overdosing through the air or dermal contact is highly improbable, officers currently carrying naloxone may stop carrying it. An interesting point related to this study is that law enforcement officers cited a barrier to carrying naloxone as a professional division of labor with emergency medical response teams (i.e., someone else's role). Most law enforcement officers believe their role at an opioid overdose scene is to protect medical personnel (Ray et al., 2015) and many believe that proper division of labor places naloxone responsibility on the emergency medical provider (Berardi et al., 2021, Deonarine et al., 2016). Adding the responsibility of naloxone administration to the role of the law enforcement officer changes their scope of practice and responsibilities within the community they serve, and most law enforcement officers have not accepted that change in scope.

Although personal liability and the risk of litigation for incorrect use of naloxone is a concern for law enforcement officers, it is unfounded in the literature. Officers can be found liable if a person suffers an injury from the officer's negligence (Davis et al., 2015); however, the research by Davis et al. (2015) does not support the concern of litigation, since there were no cases of negligence found for law enforcement officers

related to naloxone use (Davis et al., 2015). Additionally, Davis et al. (2015) found that cases filed against emergency medical services personnel on calls where naloxone was used were based on tortious acts unrelated to the use of naloxone. Even with the lack of naloxone-related lawsuits, states have created governmental immunity for any provider that administers naloxone in good faith (Davis et al., 2015). The barrier of willingness to carry can be reduced through educating law enforcement officers on legal liability protection.

Another barrier to implementing a naloxone program is negative perspectives from officers who are currently participating in law enforcement administered naloxone programs. Law enforcement officers assume the dual role of law enforcer and caregiver when participating in a naloxone program. Murphy and Russell (2020) and Carroll et al. (2020) found that officers' willingness to carry naloxone negatively correlated to the number of times they administered naloxone. Using secondary data from a 2017 study conducted by the High Intensity Drug Trafficking Area (n = 2,829 law enforcement officers), Carroll et al. (2020) observed that law enforcement officers who responded to over four opioid-related calls per month had the lowest endorsement scores for the use of naloxone. In contrast, law enforcement officers who had never responded to an opioid-related overdose showed the highest rating for the naloxone program (Carroll et al., 2020). Murphy and Russell (2020) demonstrated in a study of 618 law enforcement officers that negative attitudes regarding the naloxone program were positively correlated to increased frequency of administration. Law enforcement officers' stigma towards opioid users also played a significant role in negative perceptions of the naloxone

program (Murphy & Russell, 2020). Based on the research by Carroll et al. (2020) and Murphy and Russell (2020), law enforcement officers who administered naloxone on a more frequent basis tended to have pessimistic attitudes about naloxone and provided lower endorsement scores for the program. This could be interpreted as an increase in compassion fatigue and burnout in law enforcement officers who frequently assume a caregiver role with opioid users (Carroll et al., 2020). This also aligns with observations of policing theory, which suggests that officers who are repeatedly exposed to frustrating, depressing, or traumatizing situations become cynical and callous towards the people in the community (Gau & Paul, 2019). Rising opioid abuse, increased overdose deaths, and repeated calls to the same person (i.e., frequent flyers) can make law enforcement officers believe that their efforts with naloxone are futile. This can lead to job dissatisfaction, compassion fatigue, and burnout (Carroll et al., 2020). Some law enforcement officers believe that carrying naloxone creates the illusion of a safety net that will increase opioid use and that the availability of naloxone is contributing to the opioid epidemic (Driscoll & Michelman, 2016). According to Kirane et al. (2016), in a survey of 100 opioid users, 58% stated that access to naloxone would cause changes in their behavior and 83% believed that they would consume more opioids. These barriers to implementing a naloxone program need to be further explored.

In addition to first responders, such as law enforcement officers, there is a system of secondary responders including hospitals, treatment centers, rehabilitation facilities, social support systems, and medical support that provide treatment. Since Good Samaritan Laws protect the opioid user after an overdose, law enforcement officers are

unable to get the legal system involved to force compliance with secondary support systems, such as mandatory rehab and drug court. As explained earlier in the chapter, opioid addiction and opioid withdrawal cause complications in the body that require advanced medical care and naloxone is only an acute treatment. Failure to reach secondary systems of care places more responsibility on the primary care provided by law enforcement officers. Perceived failures and inefficiencies of secondary responder systems by law enforcement officers may contribute to compassion fatigue and burnout (Carroll et al., 2020). Barriers to law enforcement officers' willingness to carry naloxone must be further researched and addressed.

The literature suggests that law enforcement officers that frequently administer naloxone have negative attitudes towards naloxone and opioid users. According to Widyasrini & Lestari (2020), negative perspectives among the law enforcement officers can be an indication of role conflict, as well as a gap in social support meeting expectations. Dual roles often lead to role conflict. As seen with nurses, role conflict in caregiver roles can lead to emotional fatigue, reduced well-being, and poor performance (Widyasrini & Lestari, 2020). Ambiguity between the law enforcer role and the caregiver role can lead to work-related stress (Suparman et al., 2020). According to White et al. (2021), law enforcement officers' willingness to accept the responsibility of naloxone administration is unclear. Therefore, more research is needed to understand the dual role for law enforcement officers created by the naloxone program.

Dual Role of Law Enforcer and Caregiver

Historically, law enforcement officers and opioid users had an adversarial relationship where the officer held the role of law enforcer and the opioid user held the role of criminal. This adversarial role has led to discourse and distrust between the law enforcement officer and the opioid user (Selfridge, Mitchell et al., 2020). Moreover, multiple negative interactions between law enforcement officers and opioid users have contributed to the officers becoming jaded and holding stigmas towards people who use opioids (Selfridge, Greer et al., 2020). This can cause the officers' views of the opioid users' role to not align with the changing societal views. If law enforcement officers view opioid users as criminals and not as victims, the use of naloxone can create role conflict. However, a primary expectation of the law enforcement officers' role is to protect life (White et al., 20210), and administering naloxone now falls within that expectation. When the law enforcement officer administers naloxone to a person in opioid overdose, there is a shift in the traditional interactions between the two individuals: the law enforcement officer switches from law enforcer to caregiver, and the opioid user switches from criminal to victim. This creates a temporary paradigm shift in the relationship, which will situationally switch back based on the presence or absence of a medical emergency. Role theory explains how situational context changes the expectation of the roles (Biddle, 1979). According to Radburn et al. (2020), complex social identity processes, including upbringing and personal experience, will create multiple and sometimes contradictory beliefs of an individual's role expectations. Role orientation is the concept of how people inside and outside of the role view expectations (Gau & Paul,

2019). According to Torres et al. (2018), role orientation in law enforcement is associated with attitudinal and behavioral outcomes including job satisfaction, turnover, and cynicism. Changing ideologies in law enforcement roles, as seen with the community-policing movement started in the 1980s, can result in resistance to change, ambivalence, and detachment in law enforcement officers (Gau & Paul, 2019). Therefore, changing perspectives of role orientation and role responsibilities by the law enforcement officers and by the community can lead to negative outcomes for the law enforcement officer. Negative attitudes and higher turnover in policing can lead to poor policing outcomes in the community.

Considering the growing opioid epidemic, there is a need for rapid naloxone administration to people in opioid overdose. Law enforcement officers who administer naloxone provide the most effective intervention to reduce opioid-related deaths (Berardi et al., 2021; Carroll et al., 2020; Lowder et al., 2020, Rando et al., 2015); however, the use of naloxone by law enforcement adds more responsibility and creates the dual role for the officer. This can be further complicated in small towns or rural areas where law enforcement officers are likely to interact with the same opioid user on multiple occasions and in both medical and non-medical situations. Small towns and rural communities require law enforcement officers to cover larger geographic regions while interacting with fewer people than officers in urban areas (Smyser & Lubin, 2018). This increases the potential of multiple interactions between the law enforcement officer and an opioid user. Increased interactions will increase the complexity of the dual relationship.

Dual roles may lead to role ambiguity and role conflict. This can lead to work overload, work-related stress, reduced performance, and absenteeism (Radulescu et al., 2020; Suparman et al., 2020). Dual roles may lead to reduced psychological and physiological well-being (Suparman et al., 2020). Widyasrini and Lestari (2020) studied 123 nurses in caregiver roles showed how role conflict in caregiver settings led to reduced well-being. The researchers found that to improve well-being, the caregivers needed strong social support, strategies to cope with stress, and skills to manage dual role conflicts (Widyasrini and Lestari, 2020). To reduce role conflict, it is important to have clarity in the rules and responsibilities of a role (Suparman et al., 2020).

Dual relationships between law enforcement officers and opioid users are further complicated when law enforcement officers have opioid users in their personal lives. According to data collected in the 2017 HIDTA survey, in areas where law enforcement officers frequently responded to opioid overdose calls, there is a statistically significant increase in the officers personally knowing someone who has overdosed or has opioid use disorder (Carroll et al., 2020). This is because law enforcement officers often live in or near the communities where they work. Due to the high incidence of drug use in these areas, many law enforcement officers encounter opioid users in both their personal and professional life, thereby increasing their exposure to social challenges and trauma associated with the opioid epidemic (Carroll et al., 2020).

Summary and Conclusions

The opioid epidemic in the U.S. is growing at a rapid pace. Opioid use disorder and opioid-related deaths continue to be the greatest cause of accident deaths in America

(Bluthenthal et al., 2020; Kirane, et al., 2016; Purviance et al., 2017; Saucier et al., 2016). Law enforcement officer-administered naloxone programs have been shown to reduce opioid-related deaths, but have created the dual role for law enforcement officers who must act as law enforcer and caregiver. There is considerable research demonstrating the effectiveness of law enforcement administered naloxone to prevent opioid-related deaths (Berardi et al., 2021; Fisher et al., 2016; Lowder et al., 2020; Rando et al., 2015); however, recent studies have pointed out the potential challenges of the dual relationship (Carroll et al., 2020; Murphy & Russell, 2020).

Role theory examines the societal and personal expectations of a role and how people perform to meet the expectations of their roles (Agastia, 2020). Role theory recognizes that people within roles have individuality, but that roles provide a common identity through shared experiences and social expectations (Biddle, 1979). Law enforcement officers are required to carry out many responsibilities in their role and as situations change the officers' role must change based on what is occurring in each situation. As the law enforcement officer learns the expectations of their role, it becomes incorporated into their self-concept (Biddle, 1979). The new role of providing naloxone during an opioid overdose may create uncertainty in role expectations, which can lead to role conflict, role ambiguity, and role overload. More research is needed regarding the experiences of the law enforcement officers who assume the dual role of law enforcer and caregiver when administering naloxone is part of their job duties. Chapter 3 provides details of the generic qualitative research design and an overview of the research study approach used to explore this gap.

Chapter 3: Research Method

The purpose of this qualitative study was to explore how law enforcement officers describe their dual role of law enforcer and caregiver when interacting with opioid users. In this chapter, I describe how data was collected using a generic qualitative approach following Thorne's (2016) interpretive description. I conducted semi-structured interviews with law enforcement officers who experienced the paradigm shift through the additional responsibility of naloxone use and transitioned to the dual role by administering naloxone to people experiencing an opioid overdose. This chapter begins with a description of the phenomenon and the study design, including the rationale for choosing the approach, the role of the researcher, methodology, and issues of trustworthiness.

Research Design and Rationale

The primary research questions for the study are:

RQ1: How do law enforcement officers who administer naloxone to people who use opioids describe their experience of the dual role of law enforcer and caregiver?

RQ2: How do law enforcement officers describe the role expectations of law enforcer and caregiver?

The three phenomena of interest are dual roles, role conflict, and work-related stress. Dual roles are defined by Zur (2007) as a situation where two or more relationships exist between a caregiver and the person for whom they are caring. Role conflict is a situation where the demands of one role are in opposition to the demands of another role (van Rensburg & Zagenhagen, 2017). According to Thian et al. (2015),

work-related stress is defined as physical, physiological, or cognitive symptoms that arise from the temporary process of adaptation related to the work environment.

The research tradition used is a generic qualitative design with an interpretive approach. Interpretive research is rooted in social constructivism; the primary assumption is that knowledge is a social construct developed through subjective interpretations of lived experiences that uses elements of multiple qualitative traditions without aligning to a specific theoretical orientation (Kahlke, 2018). I chose Thorne's (2016) interpretive description to explore all the various perspectives of the phenomena and create a spectrum of narratives that honors the inherent complexity of human experience. Thorne's work grew out of her interest in the nursing and health care field. Thorne recognized the shortcomings of conventional social science methods to meet the individual and unique needs for clinical application. Her background in nursing strengthened her belief that knowledge is obtained through an objective and subjective dialectic process. Interpretive description uses a from-the-field approach to merge a theoretical approach with concepts of situation, intent, and context (Thorne, 2016). This approach was chosen because it is both pragmatic and expansive. It allows for information that is both useful and actionable without the constraints of theoretical traditions (Patton, 2015). It is a good fit to understand the nature of law enforcement officers' shared experiences with dual roles created by the naloxone program, and to develop practical actions to reduce role conflict and work-related stress.

The study methodology employed role theory as a guide to explore the dual relationships created by the naloxone program. Role theory asserts that within a given

society, each function is structured depending on social norms; expected behaviors and expected interactions between individuals are tied to specific roles (Biddle, 1979). Role theory was used to explore how law enforcement officers view their dual roles as law enforcers and caregivers for opioid users. This guided the development of the interview guide and data analysis plan.

Role of the Researcher

The role of the researcher in descriptive inquiry is to create and document the dialogue (both verbal and nonverbal) around the phenomenon of interest (Thorne, 2016). The researcher's role includes asking open-ended, non-leading questions to the interviewees using a non-judgmental demeanor. All interactions with the interview participants should employ openness, respect, neutrality, and sensitivity (Patton, 2015). The researcher must acknowledge pre-existing bias and set aside any preconceived ideas around the participants and the phenomenon of interest. Finally, the researcher is responsible for documenting, accurately transcribing, qualitatively coding, and interpreting the themes generated by the study participants during the interviews.

My personal experience with administering naloxone stems from my previous volunteer work as an emergency medical technician (EMT). I am aware of my perspectives of assisting opioid users during opioid overdose as a caregiver. I have also worked with law enforcement officers to transition care of the opioid user, after law enforcement officers have administered naloxone. I bracketed my own experiences as a caregiver and remained open-minded to the law enforcement officers' perspectives of caregiving in this dual role paradigm. To aid with bracketing, I created a journal of

assumptions and pre-conceived thoughts before conducting interviews and audit trails immediately following each interview. Strategies for minimizing bias are described in detail later in the chapter.

As the only researcher in the study, I was responsible for the interview selection process and scheduling all interviews. As the sole researcher, I was conscious of bias in participant selection, interview question formation, and when analyzing the data to create codes and themes. I selected participants that I did not have a personal or professional relationship at the time of the interview.

Methodology

Participant Selection Logic

Target Group

The target group was currently or previously employed law enforcement officers working in the United States of America who were officers before the responsibility of naloxone was added to their role and had to transition to using naloxone. All participants had administered naloxone at least once while working as a law enforcement officer, or they had been present while another officer administered naloxone. These law enforcement officers shared their experiences and perspectives. Prescreening occurred before an interview was arranged to confirm study participants met the defined criteria. When a potential interviewee responded via email to the posted invitation, an email was sent to them asking them to affirm the following information:

1. Are you a current or former law enforcement officer?

2. Have you worked in law enforcement in the United States before the use of Narcan™ and had to transition to administering Narcan™ to opioid users?
3. Have you administered Narcan™ at least once while working as an officer or been present when another officer administered it?
4. Are you able to interview in person or via telephone for approximately 60-90 minutes?
5. Do you agree to have the interview voice recorded and transcribed for the research?

All seven interviewees were able to respond affirmatively to the questions in the prescreening, and an interview time was arranged.

Sampling Strategy

The sampling strategy was homogenous group characteristic sampling, which purposefully targets selected individuals with common characteristics (Patton, 2015). I focused on the subgroup of law enforcement officers in the United States who had experience with opioid users before naloxone use was required and who have experienced the paradigm shift to the dual role after naloxone was added to their responsibilities. I planned to recruit seven to 10 participants, which is somewhat smaller than the sample in most descriptive studies; however, my intent was to recruit a homogenous sample (as per the inclusion criterion) and to maximize thematic saturation with rich, thick descriptions of examples and direct experiences.

While saturation of concepts and themes is essential to qualitative research, the quest for saturation can be elusive (Guest et al., 2009; Thorne, 2016; Schwandt, 2007). I

followed the process for moving towards saturation as suggested by de Cassia Nunes Nascimento et al. (2018). For this process, I transcribed the interviews as they occur and begin to build a manual codebook. As each interview was conducted, I added the data to the codebook. When there was no new data being added to the codebook, I assumed data saturation. Small homogenous sample sizes can be credible if the data reaches saturation (Guest et al., 2009; Mason, 2010).

Instrumentation

The literature discussed in Chapter 2 was used as the basis for the instrument development of the interview guide. The questions I developed used the key concepts identified in the literature. The goal was to establish validity by aligning the research questions and framework with the interview questions. This is shown in Appendix B. Each interview question was linked to the purpose of the question and the corresponding literature.

Interview Guide

The questions for the interview are provided in Appendix B: Interview Guide. In addition to questions, I provide comment about the relevance of each interview question to the phenomena under study. I also identify the research literature that justify the inclusion of each question to enhance the face and content validity of the instrumentation.

Procedure for Recruitment, Participation, and Data Collection

To identify study participants, I distributed invitations to acquaintances who have friends and family in law enforcement (See Appendix A for invitation). Invitations were given to people in law enforcement whom I am acquainted with and I asked my

acquaintances to distribute the invitations to their personal network. Law enforcement officers whom I am acquainted with were excluded from participating in the study. I also posted invitations to social media accounts including my Facebook page, Walden University Online Psychology Degree Facebook page, Doctoral Peer Mentoring Group Facebook page, and Ocean County Emergency Medical Services Facebook page. I asked people to pass on the invitations to law enforcement officers that they know. Additionally, an invitation was posted on the Walden Pool of Participants. The invitation provided instructions on how to contact me and how to obtain additional study information. After the data collection procedure, I asked study participants if they would share my invitation with other law enforcement officers who may fit the selection criteria. To avoid ethical concerns, I excluded any law enforcement officer whom I know personally or whom I have interacted with while volunteering as an EMT.

Participation included email prescreening and telephone, semi-structured, one-to-one interviews with the study participants. Before the interview, I reviewed the Informed Consent form with the participants, including information regarding the benefits and risks of their participation in the study. I informed them of their right to selectively participate by not answering specific questions and to withdraw from the study at any time. I assured participants of confidentiality and explain how their identities are protected. I obtained informed consent in alignment with Walden University policy and the American Psychological Association (APA) guidelines.

As the sole researcher, I conducted all interviews (Interview guide in Appendix B). Each law enforcement officer was interviewed once for approximately 30-60 minutes.

At the end of the interview, I will debriefed the interview process, encouraged any further thoughts or reflections, and described the member-checking process to review a summary of the interview and confirm for accuracy. Additionally, I will reflected on my own experiences during the interview process and document my feelings, reactions, and potential biases in a research journal.

Data collection included digital voice recordings of each interview. A second voice recorder and Otter.ai was used as backups in case of failure of the first device. Research memos were written in the research journal after each interview to document personal perspectives, developments, and any changes in the process.

Semi-structured interviews were conducted by telephone with the study participants. Interviews were voice recorded using a primary and back-up recording devices. For telephone interviews, the phone was placed in speaker mode and placed between the two recording devices while Otter.ai was recording in real time on my laptop. Interviewees were informed during the prescreening and reminded at the start of the interview that the conversation were being voice recorded. Interviews were transcribed using the computer software Otterai and through manual transcription were Otter.ai failed to transcribe accurately. Transcriptions were manually coded and a codebook was generated. Research notes were taken during the interview and captured in the research journal. A research journal was kept during the study to document personal perspectives, developments, and any changes in the process. The journal was used as a data source.

Data Analysis Plan

All study participants were de-identified to maintain confidentiality. Participants were identified by numbers (e.g., Officer 1, Officer 2, etc.) and identifying information was stored in a separate password-protected file. The study participants were audio-recorded during in-person interviews. Field notes were taken to document nonverbal communication or observations. Immediately before and after each interview, I debriefed with notes and reflections as part of the audit trail process. All interviews were transcribed and a codebook was manually generated. First cycle coding included the elemental methods of in vivo coding and descriptive coding and the affective methods of evaluation coding, values coding, and emotions coding as described by Saldaña (2016). Second cycle coding used pattern coding to develop sets of categories and themes to describe the meaning of the shared experiences of this dual role (Saldaña, 2016). The following points to meet data saturation were adopted and modified from de Cassia Nunes Nascimento et al. (2018):

1. Data was transcribed following each interview.
2. Immersion in the data was achieved through multiple reviews of the transcripts. Data immersion was important to achieve an overview of the whole description of experiences.
3. Codes were generated through various first cycle and second cycle coding.
4. Data was checked for unique or slang language used in law enforcement culture to confirm that data was not obscured or adulterated compared to general terms used by people not in law enforcement.

5. Interviews continued and codes were added to the codebook until data saturation was observed.
6. Themes were developed following second cycle coding and transformed into meaning using the framework of role theory.
7. Themes were synthesized into consistent statements focused on pragmatic consequences and practical applications of action.

Issues of Trustworthiness

Trustworthiness

Trustworthiness, as defined by Lincoln and Guba (2013), demonstrates the quality of the inquiry by showing that the findings emerged from a systematic process and that the interpretations can be trusted based on the scientific approach used to develop them. Trustworthiness is comprised of credibility, transferability, dependability, and confirmability (Lincoln & Guba, 2013; Shenton, 2004).

Credibility

Credibility focuses on internal validity to demonstrate the researcher is presenting a true representation of the phenomenon under study (Lincoln & Guba, 2013; Shenton, 2004). To address credibility, member checks were used (Shenton, 2004). This allows study participants to review summaries of the transcripts to confirm that I have accurately represented their experiences, and gives them a chance to add or change their words and intent. No changes were requested by participants.

I created a journal before conducting research, which included reflexivity and potential inquirer bias by describing my experience with naloxone as an EMT and my

personal experiences that have shaped my knowledge and perspectives of opioid use and naloxone (Patton, 2015). I added to the journal following each interview to capture the reactivity of the study participants and their effects on the inquirer (Patton, 2015). This research was not funded by an external source.

Transferability

Transferability is concerned with external validity (Lincoln & Guba, 2013). This allows the audience to have sufficient details regarding the study to determine if the findings can be appropriately applied to similar situations (Shenton, 2004). To enhance transferability I included thick, rich data from the interviews and provided excerpts of interview quotes where needed to support findings. Additionally, field notes and memos were included to aid in understanding the progression of the study. Finally, I was mindful of not generalizing data due to the sample size within the study.

Dependability

Dependability is concerned with the reliability of the study (Shenton, 2004). According to Patton (2015), data integrity is ensured when the research presents a logical process that is well documented and traceable. One challenge is that this study is a snapshot in time of the current perspectives of law enforcement officers. As social norms related to both law enforcement and opioid use change over time so will the perspectives around their associated roles. To enhance dependability, it was important to thoroughly describe the research design and provide significant details on execution and any deviations from the planned design (Shenton, 2004).

Confirmability

Confirmability is concerned with the objectivity of the study (Patton, 2015). To enhance confirmability, the researcher should clearly explain the research decisions made, rationales for selecting one approach over alternate approaches, weaknesses and limitations in selected approaches, and any bias of the researcher (Shenton, 2004). Audit trails are a way to establish rigor in a qualitative study (Cooper & Endacott, 2007). This study includes an audit trail of how data was collected, experienced, and analyzed to enhance confirmability. Audit trails are captured in the research journal. I created audit trails following each interview to capture my thoughts and feelings during data collection. I reviewed the audit trails during data analysis to check for bias. Additionally, I created a journal of assumptions and pre-conceived thoughts before conducting interviews and added to it following each interview. I reviewed this journal during coding and theme development to look for bias.

Ethical Procedures

This dissertation adheres to APA ethical guidelines, applicable legal guidelines, and aligns with Walden University's Internal Review Board requirements. This qualitative inquiry involved interacting with law enforcement officers to understand their lived experiences with opioid users and the naloxone program. I provided participants with information to seek professional counselors if they became distressed during or after the interview process. This was provided in the consent form. I also provided all participants with information on law enforcement support websites including the International Law Enforcement Officer's Hotline at www.copline.org and Law

Enforcement Family Resources at www.theiacp.org. All research participants were given informed consent forms and the consent was explained verbally. Participants were informed of the major aspects of the study including the purpose, benefits and risks of participation, their right to withdraw from the study at any time, and their right to not answer specific questions. Additionally, confidentiality was ensured through de-identification, secure data handling, and commitment to destroy data five years after study publication. Finally, member checking was used to assure the law enforcement officers that their perspectives are not misrepresented or taken out of context.

Summary

A generic qualitative approach using interpretive description was used to explore dual roles in law enforcement created by the naloxone program. This approach was selected since the dual roles created by the naloxone program is a new phenomenon and perspectives may still be emerging. This approach allowed for a broad interpretation without limiting the data to a single discipline (Patton, 2015; Thorne, 2016). Purposeful sampling through invitation distribution and posting was used to identify the seven study participants to participate in the one-on-one, semi-structured, phone interviews. Data collection and analysis focused on the law enforcement officers' expressed perspective of their dual role of law enforcer and caregiver while working with the naloxone program. The study adhered to the principles of trustworthiness in qualitative research. Chapter 4 provides the study results, data collection techniques, analysis techniques, and documented evidence of trustworthiness.

Chapter 4: Results

Introduction

The purpose of conducting this qualitative research study was to explore how law enforcement officers who administer naloxone to opioid users describe their dual role of law enforcer and caregiver. The three phenomena of interest this study focused on are dual roles, role conflict, and work-related stress. The research questions this study sought to answer are (1) how law enforcement officers who administer naloxone to people who use opioids describe their experience of the dual role of law enforcer and caregiver, and (2) how law enforcement officers describe the role expectations of law enforcer and caregiver. The theoretical framework of role theory with a focus on cognitive role theory, and Thorne's interpretive description approach were used to guide and provide structure for this study. This chapter begins with a description of the setting, demographic, and method of data collection. The data analysis process and evidence of trustworthiness are explained in detail, before the chapter concludes with the results and a summary of the findings.

Setting

The study setting followed the expectations described in Chapter 3. All interviews were conducted via phone or video. No face-to-face interviews were conducted due to both the location of the officer and COVID-19 precautions. No interviews were stopped early, and at no time did a participant express that they were experiencing negative consequences such as physical, emotional, or psychological stress. The initial study

proposed no compensation for participation, but due to a lack of participants, this was changed to a $50 gift card with IRB approval.

Demographics

Seven participants were interviewed for this study; six were active law enforcement officers, and one was a previously employed law enforcement officer. There were four male and three female participants. All participants were not required to carry naloxone when they started their careers and had to transition to carrying naloxone as a change in their role. All officers interviewed had the experience of administering naloxone. One officer was a former paramedic who had experience administering naloxone, but his prior experience of administration was through an intermuscular injection, as opposed to the nasal administration conducted by law enforcement officers. The identity of the officers was protected by using the identifiers Officer 1, Officer 2, etc. instead of their names. Transcripts were redacted in cases where officers used their name, somebody else's name, their department name, or their town name. Table 1 provides an overview of the demographics.

Table 1

Demographics

Participant	Years in Law Enforcement	Years w/Naloxone Responsibility	Number of Naloxone Administrations	Opioid Use in Patrol Environment	Belief in Naloxone as Officers' Role
Officer 1	6	2.5	>10	Common	Yes
Officer 2	9	2	7-10	Common	Yes
Officer 3	23	8	3-4, 8 observed	Not Common	Yes
Officer 4	4	1.5	>20	Very Common	Yes
Officer 5	4	1	10	Very Common	Yes
Officer 6	25	5 or 6	>10 or 20	Very Common	Not Sure
Officer 7	9 to 10	6	>20	Very Common	No

Data Collection

More than 50 law enforcement officers from across the United States responded to posted invitations to participate in the study. Officers were contacted by the researcher in order of response, based on the time stamp of their email request to participate in the study. They were then provided with a copy of the invitation and the consent form. Interviews were scheduled and conducted until data saturation was achieved. At this point, the remaining officers were notified that the study was closed.

Seven participants were interviewed for this study. All interviews were conducted via phone or video. Interviews were conducted between April 29, 2022, and May 18, 2022. I confirmed that all participants reviewed the informed consent before starting the interview. The interview guide (Appendix B) was followed with minor variations to keep the interview conversation fluid. They were recorded using the transcription software Otter.ai and two digital recorders as a backup. Transcriptions were created from the audio

recordings. Otter.ai did not perform well for data transcription, so significant amounts of data were manually transcribed. All recordings and transcripts are stored in password-protected files. Data collection and storage are in alignment with the plan outlined in Chapter 3. Approximately 254 minutes of interview time were recorded. The longest interview was 60 minutes, and the shortest was 23 minutes with a mean of 36.3 minutes.

Data Analysis

Data analysis began with transcribing the interviews and creating a summary of each interview. The summaries were sent to each participant for member checking, but no changes were requested. These summaries were used to explore each officer's views about the naloxone program, how they perceive it to affect their role, and the emotional impact the new role has on them. I listened to each of the recordings multiple times to become immersed in the data. Each transcript was printed, and I highlighted keywords and phrases that stood out to me. Next, a workbook was created to capture all data collected from the interviews. Each question was listed consecutively, with a row added for each participant; their exact answers were added from the transcription sheets for each question. A column was added at the end of the participant responses to capture the first cycle coding. This created the master sheet of the workbook for the first cycle coding.

First cycle coding used an inductive bottom-up approach. Coding techniques followed Saldaña's (2016) methods for elemental and affective coding. Elemental methods used were in vivo (IV) and descriptive (D). The affective methods used were emotion (EM), values including values (V), attitudes (A), and beliefs (B), and evaluation (EV). The affective method versus was applied as described in Chapter 3 but could only

be applied twice; therefore, it was removed as a coding technique. After the first cycle coding was completed, code charting following Saldaña's (2016) method was used to organize the data into charts based on code type. Five worksheets were created to separate each first cycle code category (in vivo, descriptive, emotion, values, and evaluation), and codes were charted for each question. Second cycle coding used a deductive, top-down approach for each first cycle code category. For second cycle coding, questions were removed from the spreadsheets, and pattern coding following Saldaña's (2016) methods was used to summarize codes into categories, concepts, and themes.

Using a generic qualitative design with an interpretive description approach allowed for significant flexibility in approaching the data analysis process. Thorne's (2016) interpretive description approach was selected for this study because it accounts for all perspectives about a shared phenomenon to honor the inherent complexity of human thought. During this study, I was able to hear the complex and often conflicting thoughts, values, and emotions of the law enforcement officers who are adapting to their dual roles of caregiver and law enforcer with opioid users. The officers shared their lived experiences during the interviews and provided thick, rich data, which shows the complex and evolving reality that they must navigate in their new role. This study included seven participants, and some discrepant findings were observed.

Coding using Elemental and Affective Techniques

Emotion Coding

From the interviews, 77 words or phrases were coded for emotions. Emotional codes were charted into four categories: positive emotions, negative emotions, conflicted emotions, and compassion. All codes were charted to a category, which are outlined in Table 2.

Additionally, there were 11 words or phrases that were coded as positive emotions, 56 words or phrases coded as negative emotions, three words or phrases coded as conflicted emotions, and seven words or phrases coded as compassionate. The most frequently used positive emotion codes were “happy” (n=4) and “fulfilled” or “fulfilling” (n=3). The most frequently used negative emotion codes were “stressful” or “stress” (n=8), codes related to “taking a toll” or “taxing” (n=7), and “scared” or “scary” (n=6). The frequency of codes for conflicted emotions and compassion was not as distinct.

Values Coding – Values, Attitudes, and Beliefs

From the interviews, 294 word or phrases were coded for values (value (n=100), attitude (n=112), belief (n=82)) and charted to a category. Seven value codes, seven attitude codes, and five belief codes did not chart to any of the categories. Table 3 provides the categories and codes.

Table 2

Emotion Codes and Categories

Codes	Positive	Negative	Conflicted	Compassion
comfortable (EM)	1			
empowered (EM)	1			
Excited (EM), exciting (EM)	2			
fulfilled (EM), fulfilling (EM)	3			
happy (EM)	4			
trying to manage (EM), couldn't sleep (EM), couldn't talk about it (EM), struggle (EM)		4		
demotivating (EM), futile (EM)		2		
didn't feel good (EM), not comfortable (EM)		1		
dread (EM)		1		
exhaust yourself (EM)		1		
generalized (EM)		1		
hectic (EM)		1		
hurting (EM)		1		
making fun (EM)		1		
not feel hopelessness (EM), not easy to live with (EM)		2		
shocked (EM), a shock to me (EM)		2		
tears me down (EM), not strong (EM), weigh it down (EM)		3		
really affected me a lot (EM), reflecting (EM), takes a toll (EM), took a toll (EM), taxing (EM), wasted (EM)		7		
depressing (EM), depression (EM)		2		
shaking (EM), trembling (EM)		2		
Paranoid (EM)		3		
frustrating (EM), frustration (EM), frustrated (EM)		4		
traumatizing (EM), trauma (EM), secondary trauma (EM)		4		
scared (EM), scary (EM)		6		
stressful (EM), stress (EM)		8		
challenging (EM)			1	
conflicted (EM)			1	
how I feel is a difficult question (EM)			1	
breaks my heart (EM)				1
compassion (EM)				1
empathize (EM)				1
feel for them (EM)				1
pitied (EM), pity (EM)				2
upsetting if they die (EM)				1
Total per Category	11	56	3	7

Table 3

Values Codes and Categories

Category	Code	Frequency
Value	Helping/saving/second chance	64
	Responsibility	13
	Relationship	10
	Safety	6
	Not coded	7
Attitude	Role of police officer	41
	View of the opioid user	20
	Must show strength, courage, knowledge	13
	Dissatisfaction	11
	Satisfaction	10
	Want to help/save/change lives	10
	Not coded	7
Belief	Role of police officer	25
	View of the opioid user	15
	Naloxone program	13
	Officer should not give naloxone	12
	Officer should give naloxone	8
	Opioids can affect anyone	4
	Not coded	5
	Total Codes	294

The most frequently used value discussed by the officers was the ability to help people, save lives, and give people second chances (n=74, value=64, attitude=10). The second highest frequency for value was the role of the officer (n=66, attitude=41, belief=25). There was a split between the codes dissatisfaction (n=11) and satisfaction (n=10). Officer 2 stated, "kind of 50/50 added some job satisfaction, but I think it's also added frustration," which was not charted to either code. There was also a split between the codes officers should not give naloxone (n=12) and officers should give naloxone (n=8); however, when officers were asked question 19 (Do you think naloxone

administration should be part of the law enforcement officer's role?), five officers stated that it should be part of the role, and two officers stated it should not be part of the role.

Evaluation Coding

From the interviews, 114 word or phrases were coded for evaluation and charted to a category. All codes are charted to a category. There were 32 words or phrases that were charted to the officers' role, 35 words or phrases charted to officers' views of naloxone, 19 words or phrases charted to officers' views of the opioid issue, and 28 words or phrases charted to improvements officers would make. Officer responses were split between administrations being supportive, and administrations not being supportive. Officer 2 went through an administration change where he went from a non-supportive administration to a supportive one. Officer 1 and Officer 2 both used the term "double-edge," and Officer 6 discussed feeling "in between saving lives and maintaining law and order." The most frequent codes for how officers view the opioid issue were lack of secondary support (n=13) and reuse/re-arrest (n=4). The most frequent code for improvements officers would make was the need for secondary support (n=11). Table 4 provides the categories and codes.

Table 4

Evaluation Codes and Categories

Category	Code	Frequency
How officers view their role	Administration supportive	7
	Administration not supportive	5
	Stop crime / arrest	5
	Helping	4
	Must be vigilant	4
	Follow orders	3
	Law & order	1
	Experience must be gained	1
	Must be tough	1
	Must be friendly	1
How officers view the naloxone program	Not part of role (when first introduced)	11
	Increased responsibility	10
	Both positive & negative effects	6
	Not helping	2
	Supported by public	2
	Not supported by public	2
	Another tool	1
	Increases opioid use	1
How officers view opioid issue	Lack of secondary support	13
	Reuse / Re-arrest	4
	Overwhelming	2
Improvements officers would make	Need secondary support	11
	Stakeholder involvement	4
	Officer training	4
	Improve policies	4
	Involve medical professionals in the field	4
	Eliminate opioids	1

Description Coding

From the interviews, 66 words or phrases were coded for description and charted to a category. Six description codes did not chart to any of the categories. Table 5 provides the categories with code examples.

Table 5

Description Categories

Category	Code examples	Frequency
Mental health, stress, & trauma of the officer	Examples	34
	One extreme to the other	
	Memory keeps coming and reflecting	
	Didn't make it in time	
	Almost died in my hands	
	Cannot stop thinking about it	
	Insomnia	
	Someone I know from high school	
	Commit suicide	
	Partners struggling	
Danger to the officer	Examples	13
	Resisting	
	Fighting	
	Needle in arm	
	Danger of disease	
	Life at risk	
Cycle of reuse & re-arrest	Examples	13
	Re-arrested	
	Reusing	
	Multiple drug use	
	Countless times	
	Back on the streets	
	Not coded	6
	Total Codes	66

There were 34 words or phrases that were charted to mental health, stress, and trauma of the officer; 13 words or phrases charted to danger to the officer; and 13 words or phrases charted to cycle of reuse and re-arrest.

In Vivo Coding

From the interviews, 36 words or phrases were coded for in vivo and charted to categories. All codes are charted to a category. Table 6 provides the categories with code examples.

Table 6

In Vivo Categories

Category	Code examples	Frequency
Humanizing the officer	"I have become more caring" "get to see the real person" "actually saving lives, lives that really matter"	16
Stress/conflict	"I was hired to uphold the law and now I'm not doing that because I've essentially been cut out of all this. So what do I do?"	5
Humanizing the officer & stress/conflict	"I'm strong but sometimes you are human. So sometimes we get weak" "One thing police officers don't like to feel is hopelessness" "they expect you to be more like a robot, like they don't realize that police officers are are human too, that they have feelings"	13
The opioid issue	"You know their just good enough not to have to need that kind of assistance that we know that definitely not okay being on their own and they don't count that someone is slipping through the cracks"	2
	Total Codes	36

There were 16 *in vivo* codes charted to humanizing the officer, five *in vivo* codes charted to stress/conflict, 13 *in vivo* codes charted to a combination of humanizing the officer and stress/conflict, and two *in vivo* codes charted to the opioid issue. *In vivo* codes are further explored and used to support findings in the thematic results section.

Thematic Analysis

A cross-case analysis across questions was conducted. Second cycle coding using a deductive, top-down approach for each first cycle code category was also used for this analysis. For second cycle coding, questions were removed from the spreadsheets, and pattern coding following Saldaña's (2016) methods was used to summarize codes into themes. The eight themes that emerged were related to the law enforcement officers' views of (1) saving and changing opioid users' lives; (2) humanizing the law enforcement officers; (3) mental health, stress, and trauma of officers; (4) the cycle of opioid reuse and re-arrest of opioid users; (5) officers' views of the opioid user; (6) the officers' views of their role; (7) flaws and recommended improvements to the system; and (8) the officers' views of the naloxone program. Table 7 provides the themes with examples of codes and quotes.

Table 7

Themes and Examples of Codes and Quotes

Theme	Code examples	Quote examples
Saving & Changing Lives	save lives (V), change people (V)	"actually saving lives, lives that really matter"
Humanizing the Officer	scared (EM) compassion (EM) helping (V)	"One thing police officers don't like to feel is hopelessness"
Mental Health, Stress, & Trauma of Officer	paranoid (EM) depressing (EM) takes a toll (EM)	"As a human being we breakdown at some point"
Cycle of Reuse & Re-arrest	re-arrested (D) multiple drug use (D)	"It's almost like we know it's gonna happen"
Officers' Views of Opioid User	opioids can affect anyone (B) play with fire get burned (A)	"put themselves in that situation"
Officers' Role	protect (V) set the standard (B) follow orders (EV)	"like a mom"
Flaws & Improvements in the System	Administration not responsive (EV) Lack of meaningful conversations (EV)	"we never had that kind of capacity"
View of Naloxone Program	Double-edged sword (EV) caught in the middle (EV)	"You are in between saving lives and maintaining law and order"

To check for bias, the data was charted to a data distribution table (see Table 8). From the 255 minutes of interviews, 622 pieces of data were coded to the affective and elemental codes discussed above. Of the 622 pieces of data, 618 of these codes were charted by question and by officer to show the themes were consistent across the questions and the officers. Four codes did not "map into" one of the 8 themes.

Table 8

Data Distribution Table

Theme	Identified in Questions	Number of Codes in Officer Interviews							Total Codes
		1	2	3	4	5	6	7	618
Saving & Changing Lives	1, 2, 3, 4, 5, 6, 7, 8, 10, 17, 19, 20	4	1	5	6	6	8	7	37
Humanizing the Officer	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14, 15, 17, 18, 19, 20, 21	17	5	21	49	5	26	4	127
Mental Health, Stress, & Trauma of Officer	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20	15	21	12	10	31	35	22	146
Cycle of Reuse & Re-arrest	Demographics, 5, 8, 9, 14, 15, 18, 20	2	3	6	3	5	3	1	23
Officers' Views of Opioid User	1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 15, 17, 21	8	16	4	15	1	8	2	54
Officers' Role	1, 2, 3, 5, 6, 7, 10, 11, 13, 15, 16, 17, 18, 19, 20	8	13	11	8	10	17	10	77
Flaws & Improvements in the System	1, 2, 5, 8, 9, 10, 12, 14, 15, 18, 19, 20, 21, 22	12	19	7	13	17	10	4	82
View of Naloxone Program	1, 2, 3, 4, 5, 6, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20	11	16	7	5	10	13	10	72

The resulting eight themes and their meaning will be discussed in the results sections.

In the seven interviews, two discrepant cases emerged. Five of the seven officers agreed that there was a benefit to administering naloxone and believed that naloxone administration should be part of the law enforcement officers' role. Officer 6 stated, "I

think I'm not sure, I think I wouldn't want it to be." He explained his reservations were because officers are not medical professionals and he had concerns that officers may cause more harm by administering the medication to a person suffering from a different medical condition. He stated, "We do not know how it might work or if it will cause another health issue for this person." Officer 7 did not believe that naloxone administration should be part of the law enforcement officers' role. Officer 7 stated, "I think it shouldn't be. I think they should create a different agency for that because, um, the stress is much. Having two jobs at the same time… the stress is much." No other discrepant cases were identified.

Although not discrepant, an unexpected and interesting finding emerged around the role of spirituality in law enforcement. Officer 4 spoke directly about how the experience of naloxone administration has enriched her spiritual life. She stated:

> I have become more caring, I want to help this person I'm connected to. I also have that kind of spiritual care. I want to pray for these people. Whether they know it, that I'm praying for them, or even if they don't know it. So, it's part of my responsibility. I think I have also become more spiritual because I am looking on the positive side.

Officer 4 also spoke about praying about her job and helping opioid users to find a more "Godly way" to live. Officer 1 spoke about meditating as a coping mechanism to handle the stress associated with naloxone administration. Officer 6 told of an experience where he was called to an overdose and the victim was a friend he had had grown up with since

childhood. He stated, “I was busy praying and I was busy administering.” Officers 2 and 3 both used the phrase “oh my God” when recounting an experience.

Evidence of Trustworthiness

As described in Chapter 3, techniques were deployed in maximize trustworthiness. This was done to demonstrate the quality of the inquiry by showing that the findings emerged from a systematic process and that the interpretations can be trusted based on the scientific approach used to develop them (Lincoln and Guba, 2013). Trustworthiness is comprised of credibility, transferability, dependability, and confirmability (Lincoln & Guba, 2013; Shenton, 2004).

Credibility

To enhance credibility, I provided participants with a summary of their interview and allowed each officer time to complete a member check to confirm that I accurately represented their experiences. No participants requested changes. I created a research journal before conducting research to document assumptions, pre-conceived thoughts, reflexivity, and potential inquirer bias. I added to the journal after every interview and provided step-by-step details of my data analysis. I adhered to the data collection process and data analysis procedure as outlined in Chapter 3.

Transferability

To enhance external validity, I have added sufficient details to the results so that readers may determine if the findings can be appropriately applied to similar situations (Shenton, 2004). I included thick, rich data from the interviews and provided several interview quotes to each theme to support the findings. Additionally, field notes

were included in the research journal to aid in understanding the progression of the study and the data analysis process. Finally, I was mindful of not generalizing data due to the sample size within the study.

Dependability

The reliability of the study is the foundation of dependability (Shenton, 2004). To demonstrate dependability, I presented a well-documented, logical process that is traceable to the source data (Patton, 2015). I thoroughly described the research design and provided significant details on study execution and deviations from the planned design. This study represents a snapshot in time of the current perspectives of law enforcement officers. As social norms related to both law enforcement and opioid use change over time so will the perspectives around their associated roles.

Confirmability

According to Shenton (2004), the foundation of confirmability relies on the researcher's ability to show that findings derive from data interpretations and are not biased by the researcher. In this study, I clearly explained the research decisions made, rationales for selection, weaknesses and limitations in selected approaches, and any potential researcher bias. This study includes a research journal with audit trails of how data was collected, experienced, and analyze. Additionally, the research journal captured assumptions and pre-conceived thoughts before conducting interviews and was added to following each interview. The research journal was checked for bias during data analysis and when developing Chapters 4 and 5.

Results

The research questions this study sought to answer are (1) how do law enforcement officers who administer naloxone to people who use opioids describe their experience of the dual role of law enforcer and caregiver, and (2) how do law enforcement officers describe the role expectations of law enforcer and caregiver. From the seven officers interviewed, 618 pieces of data were coded and the following eight themes emerged from the data. In the discussion below, each research question is discussed in relation to the most relevant themes. The meaning of the theme is described and examples from the interview transcripts are provided to represent some of the officers' perspectives used to develop the themes.

Theme 1: Saving and Changing Lives

RQ1: This research question explored the experience of the dual role of law enforcer and care giver. Four themes were the most essential to answering the first question.

Theme 1 is based on answers from all seven officers and was identified in 12 of the 22 questions. This theme was based on commonalities across 37 codes. Saving lives represents the physical act of administering the opioid antidote naloxone and providing cardiopulmonary resuscitation (CPR) to prevent death during an opioid overdose. Changing lives represents giving an opioid user an opportunity or second chance to seek help with their opioid addiction and become a productive member of society. Common concepts expressed by the officers included helping to save the opioid users' lives, giving them a second chance, and providing them the opportunity to change their lives with

recovery. Officer 4 stated, “now when you are administering it is actually like you are reversing the opioid-related overdoses, hence you are actually saving lives, lives that really matter.” Officer 1 stated, “I feel like taking on this role you are helping someone and you're helping this person change his or her path.” Officer 6 stated, “you save his life, and he was at the point of death, and we got him back to life, and we try to make him function in society.”

When all seven officers spoke about saving or changing lives they used positive coded emotional words. Officer 7 stated, “I was happy to save lives” and Officer 5 stated

> Lifesaving now, it's now most important thing now for me because I realize that this is a big responsibility and most of the time you're saving these people from the jaws of death. So it's actually something more fulfilling compared to just arresting the person and this one he's getting to have some change in something.

Additionally, the officers used positive value codes when describing saving and changing lives. Officer 4 stated, “If this person does wrong give him a pathway to change” and Officer 6 stated, “Because maybe if the person's life is saved he or she will get a second chance in life to you know take the steps, to function in society.” Overall, the theme of saving and changing lives was a positive experience for all seven officers interviewed.

Theme 2: Humanizing the Law Enforcement Officer

Theme 2 is based on answers from all seven officers and was identified in 18 of the 22 questions. This theme was based on commonalities across 127 codes. Humanizing the officer represents the researcher’s experience in an attempt to portray a small piece of the humanity behind what it takes to be a police officer who deals with the dual role of

naloxone administration. I used Thorne's (2016) interpretive description to explore the various perspectives of the phenomena to create a spectrum of narratives that honors the inherent complexity of the human experience as it relates to this dual role. There were several in vivo codes found within this theme. Examples include the following:

> "now it is a personal relationship with the person"
>
> "you always want to do more"
>
> "One thing police officers don't like to feel is hopelessness"
>
> "You know we have to be strong. We can't show weakness"
>
> "It adds additional stress honestly because now it has turned so human. I really sympathize at times and I really feel bad, I feel bad because I know this person."
>
> "I guess they think that that police officers should be trained for it with everything like that they should be the best at everything that they're doing, and that's not certainly the case"

When asked about the gap or disconnect between what officers are expected to do and the outcome of those actions, Officer 4 stated

> I guess they expect you to be more like a robot, like they don't realize that police officers are human too, that they have feelings. Even, you know, experiences. I mean, some people have family members that are, are addicts, you know. So, so dissociation, I mean some of the other Officers, dissociation where you go to a call and oh, they don't realize that it takes a toll. It takes a toll on police officers. It's, you know, anything we do, especially if the person doesn't make it, it never, it stays in your brain, you know, stays, it's where over time, it it gets to you, but

> there's a lot of like programs out there to help out police officers. Police officers only, they only see the bad in humanity many, many times. Nobody calls the police officer when they're have a good day.

When Officer 6 was asked how he navigates between his role as a law enforcer and his role as a caregiver when interacting with opioid users, he stated

> Navigating this new job you have to put yourself in check. So sometimes, I have to go see, I have to go see a doctor. I have to talk to a counselor just to keep me in check you know. So that I won't fall off the wagon because, truth be told, these are things that we officers sometimes you cannot come out to speak. You cannot come out to say because if you say these things, you know, it might cost, it might cost me my position. If I say or show weakness, they might say you are not fit for the job. But they forget that you are human, you know. As a human being we breakdown at some point. So getting this job for me it's, you know, it's really taxing. But I have to do it because at some point in my life I have to talk to, you know, a therapist. I have to talk to somebody.

As illustrated above, several of the codes that built this theme are related to getting to know and forming a relationship with the opioid user. This was shown to be problematic, as revealed in theme 4 below, when describing the cycle of reuse and re-arrest that leads to multiple interactions between opioid users and officers. There is also the extrinsic expectation to be strong, emotionless, or superhuman expressed by several of the officers. In the interviews, the officers share that these expectations add stress to their role. This overlaps with theme 3 discussed in the next section.

Theme 3: Mental Health, Stress, and Trauma of the Officer

Theme 3 is based on answers from all seven officers and was identified in 18 of the 22 questions. This theme was based on commonalities across 146 codes. Mental health, stress, and trauma represents emotional, physical, and psychological challenges that officers experience related to their dual role of law enforcement officer and caregiver related to naloxone administration. This theme was the most diverse and complex theme to analyze. It ranged from bringing one officer a greater sense of spirituality (Officer 4) to one officer seeing a mental health professional (Officer 6). Some statements were made that showed the conflict associated with the dual role. Officer 2 stated

> I was hired to uphold the law and now I'm not doing that because I've essentially been cut out of all this. So what do I do? This is one of those, one of those things where a lot of people, where depending who you talk to they have a lot of different feelings and kind of like can you talk about the situation. You know not a lot of my partners felt that we should even be in the business of saving them. That's what the ambulance is for.

Officer 6 stated

> Now you are in between saving lives and trying to maintain law and order. Now these are people are using opium and you have to save their lives. So it can be hectic now when you have to combine those two rules together. Trying to save somebody's life and trying to stop crime so my present role right now is kind of impossible for me. Trying to middle in between, and also trying to make a choice, which should I do first. You know, when you got a call, you have to respond.

> There is a lot of decision making. So the role right now, both roles right now is taxing. It is taxing. But you have to manage it, even weigh it down. I have to speak my mind. You weigh it down. I am not comfortable with it, but you have, you know the boss gives an order, the big people give an order and so you have to do it.

There was also a range of emotional conflicts, as noted in the emotional coding section above. Another common concept that emerged in this theme was the sense of unpredictability, the need to be vigilant, and the requirement to quickly adapt to changing situations. Officer 2 explained a situation where during a naloxone resuscitation the opioid user began fighting the officer.

> You know, you're trying to rescue somebody and get all the fighters on. I had it once on a scene for a different situation and it's just not fun. Not a good time whatsoever because you literally going from one extreme to the other and you go home from that call going what the hell just, what happened there...Everything's always changing every minute.

When Officer 5 discussed the biggest challenge of the dual role he stated, “You have to be vigilant. So that is the biggest challenge, the vigilance. ...And also insomnia, for me I had really bad insomnia the first few weeks.”

Several of the officers recounted experiences that were traumatic for them. These experiences included their first time administering the medication, administering it to a pregnant woman, to a young boy about the age of the officer’s son, to a friend since childhood, and to a person who bullied the officer in high school. Some of the officers

also spoke about people who resisted or became violent during or after the administration. Officer 3 discussed the stress of getting through traffic when there are only minutes to get to the person who is experiencing an overdose and the hopelessness that officers can feel when they get there too late to prevent death. Officers also discussed the stress of not knowing if the person is suffering from another medical issue or faking an overdose to avoid arrest. Overall, the theme of mental health, stress, and trauma of the officer showed a broad spectrum of emotions and conflicting thoughts within and among the seven officers interviewed.

Theme 4: The Cycle of Reuse and Re-Arrest

Theme 4 is based on answers from all seven officers and was identified in seven of the 22 questions, and showed up during demographic data collection. This theme was based on commonalities across 23 codes. The cycle of reuse and re-arrest represent the challenges of opioid addiction and the high rate of multiple encounters with law enforcement due to these challenges. Officer 6 described the opioid epidemic as the “bane of society.” Officer 3 stated, “So it's almost like a waiting game. You know what's gonna happen. When it does, it's pretty much almost like I told you so kind of thing.” Officer 1 explained

> You cannot get these people to change, most you cannot change, when it’s close to 90% of these people don't change. Once they are out they go back to the same thing because there is no support system or the company they keep, it's always there you know.

Officer 2 stated

> With Narcan it kind of was like I pitied them you know in a way but at the same time we're probably gonna run into this person again at some point, either this week, next week, or when the next batch of heroin comes in. So, you know, kind of like kind of the moment self-defeating thought process if you think about it. You know that you're very well may run on this person very soon again.

Throughout the interviews, the officers made several references to reuse and re-arrest. All of the officers appeared to understand the challenges of addiction but still appeared frustrated with their inability to slow down or stop the opioid problem in their community. The officers spoke about additional support needed, which will be covered in further detail in theme 7.

Theme 5: Officers' Views of the Opioid Users

RQ2: This research question explored how officer described their dual role of law enforcer and caregiver. Four themes were the most essential to answering the second research question.

Theme 5 is based on answers from all seven officers and was identified in 13 of the 22 questions. This theme was based on commonalities across 54 codes. The officers' views of the opioid users represent the complex nature and relationships they experience and observe when interacting with opioid users. Concepts expressed by the officers were mixed with positive and negative terms to describe opioid users. Some terms used included vulnerable, criminals, bad guys, young boy, friend, careless, doesn't know how to stop, suicidal, not willing to change, and junkie. Officers 2, 3, and 4 all explained that opioid use could affect anyone. Officer 4 stated, "I have realized that opioid use can

affect anyone. It is not for men. It is not for women. It can affect your mom, your dad, your uncle, your friend. Anybody you know." Officer 3 told a story about a fellow officer who became addicted.

> We had we had a police officer that got hurt on the job, hurt his back. They were given him pain medicine. And then they said okay, you should be alright. Now they stopped the pain medicine, which his back was still in pain. He had no relief. He actually started, you know, taking the hard stuff, you know, like the heroin. And it was because he had no relief. He had no choice but whereas he never asked for help either. So he lost his job and later on a couple years later, he lost his life due to an overdose...It makes people do crazy things.

Several officers also discussed the misconception that naloxone resuscitation was a treatment to help with recovery. Officer 2 stated, "they almost died, they should have had a life lesson there that should be enough to scare him straight. Not the case in a lot of the situation" and "It's not a miracle drug. It isn't going to automatically make somebody not crave opioids or they think it's one-stop or one-stop shopping for curving the opioid epidemic." Officer 5 stated, "this is a problem that needs to be solved by other people who cannot work independent for better outcomes. It's important to involve as many stakeholders, stakeholders as you can."

The theme of the officers' views of the opioid user showed mixed emotions that covered the range of negative, positive, conflicted, and compassion. For example, when speaking about opioid users Officer 2 stated, "people put themselves in a situation versus someone with cancer or diabetes" then later acknowledged choices concerning his own

health issues and stated, “if I stop eating like crap and I kind of processed it's a situation that somebody chose to put themselves into”, the officer began to show empathy for the opioid user. Officer 2 ended his statement by saying he was “definitely conflicted.” Value codes, particularly in beliefs and attitudes often conflicted across and within samples. For example, terms to describe opioid users were “bad guy” (Officers 6 & 7), “criminals” (Officers 4 & 6), “junkie” (Officer 3), “vulnerable” (Officer 4), “mattering person” (Officer 1), “my friend” (Officer 6), “loving” (Officer 1), and “young boy” (Officer 6). Overall, the theme of the officers’ views of the opioid user showed a range of emotions and conflicting thoughts within and across the seven officers interviewed.

Theme 6: The Officers’ Views of Their Role

Theme 6 is based on answers from all seven officers and was identified in 15 of the 22 questions. This theme was based on commonalities across 77 codes. The officers’ views of their new dual role ties into role theory. For the purpose of this analysis, I will focus on cognitive role theory, which explores the relationship between social expectations and the impact those expectations have on social conduct and behavior (Biddle, 1986). Role theory will be explored in more detail in Chapter 5. Officer 1 described her role when working with opioid users as the following.

> I kinda feel like when I need to be serious I have to be. When I have to be a nurturing person, I have to be that, just like a mom, you have to be tough. So at times you have to be the tough side and the nurturing side. So it's pretty much the same.

When Officer 4 was asked about the biggest challenge she has experienced related to the dual role of caregiver and law enforcer she responded.

> You can do both. It's doable. You can be nurturing. You can be tough. As long as you are doing the right thing to help this person. Don't do anything that will cause more harm than good….Yeah. You know, if somebody has already been hardened throughout and you're getting now into this whole new thing of caring for patients now, it's a tough thing. Also, personalities really matter.

When the seven officers described their roles, they all spoke about their responsibilities including their expectation to maintain law and order and their expectation to help the community; however, it is the researcher's perspective based on the interview responses that these expectations were intrinsically motivated. The only divergence observed was in the discrepant case of Officer 7 where there appeared to be intrinsic motivation to help the community but extrinsic motivation when it came to using naloxone. Even with Officer 6, his belief that naloxone should not be part of the law enforcement officers' role was due to a fear that he may inadvertently cause harm by using it incorrectly due to a lack of medical knowledge. In the case of Officer 7, he made several statements about wanting to help the community. He stated, "When I first came out of the academy, I wanted to be a hero. I wanted to save the world" and "I always wanted to save lives. That was my dream job." Although he made these statements, he does not believe that naloxone should be part of the law enforcement officers' role.

Theme 7: Flaws and Improvements to the System

Theme 7 is based on answers from all seven officers and was identified in 14 of the 22 questions and showed up during demographic data collection. This theme was based on commonalities across 82 codes. Flaws and improvements to the system represent gaps and solutions that the officers have identified that they believe could help improve outcomes for themselves, the opioid users, and the community. The most frequent code identified was the lack of secondary support systems. This appeared a total of 18 times across 9 questions by 5 officers. Officer 2 stated

> You hit him with Narcan. He's good to sign his RMA. Off he goes for some more drugs, a couple hours later the police are back in the house giving him Narcan. He signs the RMA and it's like why?... you can't involuntary hold them or 5150 them…and at the same time they have a right and they're of sound mind and body it after having the Narcan administer but really there are really these times when what is the best outcome for that person? Going into mental health facility to get help and maybe they need to do sit down in jail, but now jail is not entirely an option so you have to get on the mental health road. Particularly you can ask for mental health hold and actually get a judge to sign off at that point. Because really you're dancing on a thin line there…In fact we never had that kind of capacity where you had people walking the streets that probably still should be in a mental health institution. But as the way the law is we revamp and revisited over the years versus no option and they're out on the streets. You know their just good enough not to have to need that kind of assistance that we know that definitely not

> okay being on their own and they don't count that someone is slipping through the cracks.

Officer 2 also stated

> it's not a miracle drug isn't going to automatically make somebody not crave opioids or they think it's one stop or one stop shopping for curving the opioid epidemic but in all actuality, and I eluded to this before, it takes therapy, it takes the person having the will to wanting to quit, it takes getting them the help they need to quit you know, maybe inpatient program or an outpatient program. Um, things of that nature where you know where they really control the process to get help but not realize to what took them down that road to take the drug in the first place.

Officer 4 stated

> I feel like the outcome at times is not, is quite not very pleasing. It may feel like not much has been done. But this is something that requires support from all stakeholders. Don't put blame game on police officers. Don't put blame game on the person. Like saying he is so much addicted he can't change. Like have you tried to put him in some sort of a rehab, isolation, you know. Most of these things will work.

Officer 5 stated

> Policies should facilitate at least a follow-up about these people who are being helped. Like it should be following up a lot on the progress and in terms of in terms of what else can we do for this person. If I am able to link chain so what's

> next for this people. And I realize that most people don't have anywhere to go even after they are able to like be free. So it's quite challenging. Some of them can go back to crime. Some of them can even commit suicide...For me, personally I feel so, like the support system is really lacking.

The second most frequent code identified was the need for more medical training for the officers (n=9). Several officers referred to not being medically trained, not being a doctor, not knowing if the person was suffering from another medical condition, or not knowing if the naloxone would cause side effects if the person had another medical condition.

The officers had various views on department policies. Since officers were randomly sampled from across the United States it is unlikely any came from the same department or had the same policies so different departments are likely to have varying levels of quality when it comes to department policies. Several officers stated that the department policies did not sufficiently provide instructions to perform proper naloxone administration. The reasons for this included policies being outdated, too complex, too vague, or copied from an industry website or association that did not align with the equipment the department was using. Additionally, two of the officer stated that there were too many policies, and one stated that the policies are always changing. Some of the officers expressed concerns that policies did not adequately cover training requirements. In some cases, training was only done online or training was only done once without refresher training. Policies do not require officers to train with medical professionals or to take additional medical training. A few of the officers discussed that policies do not

require follow-up visits, there are no requirements to provide secondary support resources, and there are no requirements to let the officers know if the person survived if they are transferred to the hospital. Officer 7 believed the policies his department had in place were sufficient.

The officers touched on other areas where the system can be improved. Officers 5 and 6 spoke about the lack of public awareness, Officer 7 explained that naloxone is not solving the problem, Officer 2 spoke about the lack of incentives to get opioid users off of drugs, and Officers 4 and 5 spoke about needing the involvement of all stakeholders. The gaps and solutions identified by the officers will be further explored in Chapter 5.

Theme 8: The Officers' Views of the Naloxone Program

Theme 8 is based on answers from all seven officers and was identified in 16 of the 22 questions. This theme was based on commonalities across 72 codes. The officers' views of the naloxone program represent a collective interpretation of the officers' opinions, beliefs, and feelings towards their role in naloxone administration. As discussed in discrepant findings, five of the seven officers agreed that there was a benefit to administering naloxone and believed that naloxone administration should be part of the law enforcement officers' role. Officer 6 was unsure if naloxone should be part of the law enforcement officers' role due to the risk of causing harm and Officer 7 believed naloxone should not be part of the law enforcement officers' role.

Officers 1, 4, and 5 spoke about the added responsibility that came with naloxone administrations. Officer 6 spoke about the conflict experienced in the dual role of deciding when to arrest or when to take medical action. Officers 1 and 2 used the term

"double-edge" to explain the conflict. Officer 1 explained the emotional conflict by stating the following.

> I think at times it's something that is a double-edge. Like it brings positivity in that you can change someone else's life. Another thing on the negative side is you have to give so much of yourself. Like you can exhaust yourself since you are there through a later stage.

Officer 2 explained the feeling of role conflict between his duty as a law enforcer and his duty as a caregiver.

> Really, it's a double-edged sword if you think about it because now you're kind of caught in the middle. As a law enforcement officer, you're supposed to be enforcing the law, and last time I checked drugs are, opioid drugs are still illegal pretty much. Now you have to kind of take a caretaker role if you have a medical issue so take care of the medical first and deal with the law side later.

Several offers felt role strain from the process of administering the naloxone. Officers 2 and 3 spoke about the challenges of putting the naloxone applicator together and administering the medication. Officer 6 explained that this created a wider scope of knowledge, which could be beneficial in his personal life, but that the dual role created a lot of decision making and a lot to navigate on the job. Officer 7 also explained that the dual role created a lot of decision making with multiple priorities to consider.

Officers 1, 4, 5, and 6 believed that administering naloxone created a more positive image of law enforcement officers in the community. Officer 3 believed his community already "love" the law enforcement officers in the community. Officer 7

believed that half the community had a more positive view and half did not change their views. Officer 2 believed there was no change. Additionally, Officers 3, 4, and 7 believe their department administrators are supportive and responsive when it comes to the naloxone program. Officers 1 and 5 believe their department administrators are not supportive and responsive when it comes to the naloxone program, Office 2 experienced an administration change where his first administration was not supportive but the second administration was supportive. Officer 6 chose to not answer the question. Overall, most law enforcement officers interviewed accept the naloxone program as part of their role.

Summary

The research questions this study sought to answer are (1) how do law enforcement officers who administer naloxone to people who use opioids describe their experience of the dual role of law enforcer and caregiver, and (2) how do law enforcement officers describe the role expectations of law enforcer and caregiver. Table 9 provides a summary of each theme as it correlated to each research question.

Table 9

Research Questions

Q(1) How do law enforcement officers who administer naloxone to people who use opioids describe their experience of the dual role of law enforcer and caregiver?	Q(2) How do law enforcement officers describe the role expectations of law enforcer and caregiver?
Saving & Changing Lives	Officers' Views of Opioid User
Humanizing the Officer	Officers' Role
Mental Health, Stress, & Trauma of Officer	Flaws & Improvements in the System
Cycle of Reuse & Re-arrest	Views of Naloxone Program

The themes related to Q(1) were mainly focused on the physical, emotional, and psychological factors that the law enforcement officers used to create and describe the experiences of their dual role of law enforcer and caregiver related to naloxone administration. The themes related to Q(2) were mainly focused on the systematic and evaluative process of defining their current and evolving role as they transition to their new dual role during this paradigm shift.

This chapter provided a description of the setting, demographic, and method of data collection. The data analysis process and evidence of trustworthiness were provided in detail. A summary of the results were presented, including discrepant cases, and themes were correlated to the research questions. Chapter 5 provides the interpretation of findings, limitations of the study, recommendations for further research, and recommendations for positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of conducting this qualitative study was to explore how law enforcement officers who administer naloxone to opioid users describe their dual role of law enforcer and caregiver. The research questions examined in this study were (1) how law enforcement officers who administer naloxone to people who use opioids describe their experience of the dual role of law enforcer and caregiver, and (2) how law enforcement officers describe the role expectations of law enforcer and caregiver. Within the data, eight themes were identified that address these two research questions. The theoretical framework of role theory, with a focus on cognitive role theory, and Thorne's interpretive description approach were used to guide and provide structure for this study.

The three phenomena of interest within this study are dual roles, role conflict, and work-related stress. Zur (2007) defined dual roles as a situation where two or more relationships exist between a caregiver and the person for whom they are caring. Role conflict is a situation where the demands of one role are in opposition to the demands of another role (van Rensburg & Zagenhagen, 2017). Work-related stress is defined by Thian et al. (2015) as physical, physiological, or cognitive symptoms that arise from the temporary process of adaptation related to the work environment. This chapter begins with an interpretation of the findings, relevant to the current literature and as they apply to role theory, a discussion of the limitations of the study, and recommendations. The chapter ends with implications and conclusions.

Interpretation of the Findings

The first research question in this study addresses how law enforcement officers who administer naloxone to people who use opioids describe their experience of the dual role of law enforcer and caregiver. The four themes that emerged were (1) saving and changing lives; (2) humanizing the officer; (3) mental health, stress, and trauma of the officer; and (4) the cycle of reuse and re-arrest. The second research question in this study addresses how law enforcement officers describe the role expectations of law enforcer and caregiver. The four themes that emerged were (5) the officers' views of the opioid user; (6) the officers' views of their role; (7) flaws and improvements in the system; and (8) officers' views of the naloxone program.

Findings Relevant to the Current Literature

The current literature primarily focuses on the success of opioid overdose reversals by law enforcement-administered naloxone programs and training programs of law enforcement officers. Previous research, however, does not address the phenomenon of the roles experienced by law enforcement officers employing the naloxone program. Findings from this study relate to the current literature through themes 1, 2, 3, 4, 7, and 8.

Theme 1: Saving and Changing Lives

According to the literature, law enforcement officers are often the first trained professionals to arrive at the site where an overdose patient is located (Ray et al., 2015; White et al. 2021), they outnumber emergency medical technicians (EMTs) by 3:1 and paramedics by 10:1 (Lurigio et al., 2018; White 2021), and their ability to quickly administer naloxone has significantly increased survival rates for opioid overdose victims

(Berardi et al., 2021; Carroll et al., 2020; Lowder et al., 2020; Smyser & Lubin, 2018). These facts were expressed by all seven participants. All participants spoke about the ability to save more lives with naloxone. Research by Ray et al. (2015) showed that before naloxone, law enforcement officers felt frustrated when they were witnessing a person die from an opioid overdose while waiting for medical personnel to arrive. Some officers in this study expressed similar sentiments. For example, Officer 2 stated, “We have that tool, and it's available to us working to make better outcomes on our calls versus waiting for the ambulance and possibly watching somebody die in front of you.” Officer 3 stated, “Biggest benefit…when you're watching somebody overdosing, you can do something compared to not doing anything and watching and waiting for an ambulance or the medics to come.” When discussing the naloxone program, saving and changing the lives of opioid users appeared to bring the most value to the new responsibility for the officers.

Theme 2: Humanizing the Officer

Humanizing the officer was briefly touched upon in the current literature. Most literature discussed the expectations of law enforcement officers to meet organizational and professional norms. This requires a high level of psychological stamina, and officers develop coping mechanisms to psychologically deal with their emotions in a way that meets the expectations of their role (Romosiou et al., 2019). The coping mechanisms may include compartmentalizing thoughts and emotions, which may lead to developing normative behaviors in many areas of their lives (Amiot et al., 2017). This study showed varying degrees of that. Some officers gave brief answers, and they may have been

exhibiting those behaviors, or they may have had very little knowledge or emotions about the topics to share. Other officers were very open about their feelings, their trauma, their spirituality, the challenges they have about talking about their emotions, and some of the coping skills they have employed, which included using humor, praying, meditating, and seeking help from mental health professionals.

Theme 3: Mental Health, Stress, and Trauma

Mental health, stress, and trauma of law enforcement officers is an area that needs more research. Based on the research by Carroll et al. (2020) and Murphy and Russell (2020), law enforcement officers who administered naloxone on a more frequent basis tended to have pessimistic attitudes about naloxone and provided lower endorsement scores for the program. The research suggested this may indicate that law enforcement officers are experiencing compassion fatigue and burnout from frequent administration of naloxone (Carrol et al., 2020).

In the case of Officer 7, he made several statements about wanting to help the community. He stated, “When I first came out of the academy, I wanted to be a hero. I wanted to save the world…I always wanted to save lives. That was my dream job.” Although he expressed these views, he does not believe that naloxone should be part of the law enforcement officers’ role. Officer 7 reported that he works in an area with frequent opioid use, and he has administered naloxone more than 20 times in 6 years. This could be interpreted as an increase in compassion fatigue and burnout in law enforcement officers who frequently assume a caregiver role with opioid users.

Several of the officers spoke about experiencing trauma associated with naloxone administration. Officers discussed the physical, psychological, and emotional side effects associated with this new responsibility. Some of the experiences discussed included the stress of trying to get to the person in time, the uncertainty and stress of decision-making they encountered when administering the naloxone, their concern for their safety and everyone else's safety due to the unpredictability of the bystanders, the potentially violent reaction of the person receiving the naloxone, the fear that the person may die, the physical and psychological side effects, such as insomnia or obsessive thoughts afterward, and the feeling of defeat or ineffectiveness when they reencounter the person using opioids again. While prominent for the officers, these topics are relatively absent from the current literature.

Theme 4: The Cycle of Reuse and Re-Arrest

The cycle of reuse and re-arrest appeared to bring the most frustration to the officers. According to the literature, law enforcement officers are more likely to interact with a person with opioid use disorder than any other public official or medical care provider (Davis et al., 2017). In a survey conducted with 117 law enforcement officers, 97.4% had responded to a call for an opioid overdose at some point in their career, 93.2% had responded to an opioid overdose in the past 12 months, and 49.6% had responded to an opioid overdose in the past 30 days (Ray et al., 2015). Opioid use disorder is characterized as a chronic illness involving addiction, remission, and relapse (Wang, 2019), and Chapter 2 detailed the physiological and psychological mechanisms associated with the high rate of relapse.

Although most of the officers interviewed discussed their understanding that opioid use was an addiction, and that the opioid user was struggling with a disorder, they still appeared to assume an attitude of frustration and defeat when discussing their role in helping the opioid user. Officer 5 explained, “I feel like also maybe the management is a kind of frustrated seeing the events of what really happens in the real world where we're re-arresting the same person.” Officer 2 described it as a “self-defeating thought process if you think about it, you know that you're very well may run on this person very soon again.”

Several of the officers discussed that the opioid problem is getting worse despite their best efforts. They also expressed concerns that they feel ineffective and stuck in the middle, since they can no longer force the opioid user into court-ordered treatment programs, bring them to detox in a jail cell, or a to the hospital due to Good Samaritan laws. Some of the officers also expressed concerns that the increased accessibility to naloxone was increasing risky behaviors by opioid users by creating the illusion of a false safety net.

Theme 7: Flaws and Improvements in the System

Before law enforcement officers assumed the role of caregiver for opioid users, their responsibility was to arrest the opioid user. This placed the opioid user into the legal system where there could be court-ordered interventions such as treatment facilities, rehabilitation programs, or other provided social and medical supports. Since Good Samaritan laws protect the opioid user after an overdose, law enforcement officers are unable to get the legal system involved to force compliance with secondary support

systems, such as mandatory rehab and drug court. As explained in Chapter 2, opioid addiction and opioid withdrawal cause complications in the body that require advanced medical care, and naloxone is only an acute treatment. Failure to reach secondary systems of care places more responsibility on the primary care provided by law enforcement officers. Perceived failures and inefficiencies of secondary responder systems by law enforcement officers may contribute to compassion fatigue and burnout (Carroll et al., 2020). Lack of secondary support systems was the most frequent code identified under this theme. It was brought up 18 times across nine questions by five of the officers.

Findings around training did not align with the current literature. In a study by Ray et al. (2015) of 117 law enforcement officers who underwent 20-25 minutes of naloxone training, 89.7% of the officers responded that naloxone was not hard to administer. Similarly, Beradi et al. (2021) found that training has been shown to increase the law enforcement officer's knowledge and confidence in overdose management. In this study, the second most frequent code identified in this theme was the need for more medical training for the officers (n = 9). Several officers referred to not being medically trained, not being a doctor, not knowing if the person was suffering from another medical condition, or not knowing if the naloxone would cause side effects if the person had another medical condition. Several officers expressed emotional distress associated with having to make life or death medical decisions that they believed they were not qualified to make due to a lack of training. Finally, there was a lack of literature specific to law enforcement department policies, but there is significant research into policy writing best

practices and policy maintenance. The officers expressed several concerns about department policies. This topic will be covered further in implications.

Theme 8: Officers' Views of the Naloxone Program

Since the introduction of the naloxone pilot programs in 2013, more studies examining the success of law enforcement administered naloxone to save lives during an opioid overdose have been conducted (Berardi et al, 2021; Carroll et al, 2020; Lowder et al., 2020, Smyser & Lubin, 2018). Despite the documented success of the program, approximately 87% of United States police departments have not implemented a naloxone program (Lowder et al., 2020). The disconnect between research and implementation suggests a misalignment between the success of naloxone to prevent opioid overdose deaths, and law enforcement management's willingness to take on this responsibility.

Most of the officers in this study believed that law enforcement officers should administer naloxone. One officer did not agree, and one officer was unsure, for fear of causing more harm; however, many of the officers in this study were resistant to the idea of naloxone administration when the concept was first introduced. Officer 2 stated, "It's gonna sound horrible but I really, at first, did not think that it was within the scope of police departments." Officer 4 explained, "People were like this was not something we should be doing." Although the officers were initially resistant to accepting the new responsibility of naloxone administration, most became accepting of the new responsibility after gaining lived experience administering naloxone. They gained confidence in their ability and saw the positive outcomes of saving lives. The primary

reason the officer gave for their trepidation was that they did not see naloxone administration as part of their role. They viewed their role as law and order; they did not see themselves as doctors or paramedics. They viewed opioid users as breaking the law, and their role was to arrest them. Naloxone administration by the officers changed many of the pre-defined roles the officers held for themselves, medical professionals, and opioid users. This suggests that one of the hurdles to implementing the program may be gaining initial buy-in from the officers. Initiatives focused on introducing the naloxone programs to departments to gain officer buy-in may help reduce this barrier to entry.

Findings Relevant to Role Theory

Role theory posits that people recognize functions in society based on social norms and assign attributes to structure the roles within their society (Biddle, 1979). Law enforcement officers have a recognizable role in modern American communities; however, the interpretation and meaning of this role vary by community, and behaviors and interaction norms associated with law enforcement officers vary by community as well. Currently, the US is undergoing substantial social and political reforms that are redefining or leaving ambiguous attributes, expectations, and social norms of both law enforcement officers and opioid users (Craig & Reid, 2022; Walker et al, 2022). This has created a paradigm shift around both the role of the law enforcement officer and the role of the opioid user. As opioid use disorder is spreading into more demographics and touching more lives, the social view of the opioid user is shifting from a criminal behavior to an addict suffering from a medical condition (Socia et al, 2021).

The five concepts that form the structure of role theory (Biddle 1979) are applicable to this study's findings. First, roles are formed when behaviors and characteristics are patterned within a social context. Before naloxone administration, law enforcement officers had a clear role expectation of their patterned social context when interacting with the community. Saving lives and changing people's lives to become more productive members of society was something the officers already identified as an integral part of their role. The addition of naloxone allowed them to extend this function of their role to more people, as identified in Theme 1. Officer 3 explained

> It's another tool that you can help people. I mean, that's my main concern is it doesn't matter who you are, what gender you are, what color you are, whatever you think you are. Everybody has the right to live.

The theme of saving and changing lives also was identified as the biggest benefit of the naloxone program and was associated with the most positive language used by the officers.

In the second concept of role theory, social position is developed when a group of people creates a common identity through shared experiences. Before naloxone, officers had the shared experience of arresting opioid users. First, not all law enforcement officers administer naloxone. Only 13% of U.S. police departments have implemented programs (Lowder et al., 2020), so the patterned behaviors and characteristics of the police officers' role have become varied. Second, since there is only a fraction of law enforcement officers participating in the naloxone program, the common identity gained through shared experiences that help defined the role of law enforcement officers has begun to

vary. Some officers only arrest, while some officers save or arrest depending on the situation. Particularly in Theme 5, the results revealed that the prior shared meaning of the opioid user has changed, as well as the officers' expected interactions with opioid users. When role expectations are changed, expectations of both the person in the role and the community need to form. In several communities, the public does not embrace the use of naloxone by law enforcement (Hodge et al, 2019). The stigma around opioid use creates a barrier to using tax dollars on naloxone programs (Selfridge, Greer et al., 2020). As seen even in this study, not all officers agree with the use of naloxone.

There was mixed language used to describe opioid users. In some instances, the opioid users were described as vulnerable people struggling with addiction and at other times they were described as criminals and junkies who do not want to change. This language was mixed throughout the interviews where several of the officers fluctuated between the spectra of descriptions. The mixed language used by the officers defined their perception of the opioid users' role and demonstrated the cognitive dissonance that the officers expressed when describing their interactions with the opioid users (Brzezinska, 2020). The use of positive and negative language by the officers interviewed to describe the opioid users shows that there is ambiguity and fluidity in their understanding of the opioid users' role as well. The new responsibility has created a role expectation that is not aligned with some of the community's and some of the officers' perspectives or beliefs. This can lead to role conflict and psychological discomfort (Huey & Ricciardelli, 2015; Torres et al., 2018). Inter-role conflict occurs externally when a

person's actions conflict with the institutional expectations of the role (Brzezinska, 2020).

In the third concept of role theory, both the person in the role and the members of the community are aware of the role expectations, therefore the role is governed by the expectations. If expectations are unclear, behaviors may vary depending on training, context, and personal values. Before naloxone, the law enforcement officer, the opioid user, and members of society were clear on the expectations. As observed in Theme 6, the law enforcement officers' role is complex and changing. Police reformers, including social advocates, academics, political figures, and internal administrators, have shifted the expectations of the law enforcement officer role over the past 40 years (Gau & Paul, 2019). As Biddle (1986) explained, the perceived expectations of people outside of the role can influence behaviors within the role. Several officers spoke about their perceived expectations of their role, which they believe come from superiors, fellow officers, and the community. These include the concepts of being strong, never showing weakness, being superhuman, and having all the answers.

Several of the officers in this study believed their initial training was inadequate to meet the new expectations of their role. Most officers in this study stated that initially they did not view naloxone administration as an expectation of a law enforcement role, and two of the officers still held that view at the time of their interview. Additionally, there were mixed opinions from the officers on their views of the communities' support for officer-administered naloxone. This could mean that the community is not aligned

with the expectation of this new role. These examples from the officers demonstrate some of the challenges of meeting the third concept of role theory.

In the fourth concept of role theory, failure to meet role expectations of a social system can result in consequences so behaviors within the role persist to avoid consequences. Before naloxone, the police arrested opioid users and the opioid users went to rehab or jail. As described in Theme 6, the addition of naloxone administration to the officers' role creates ambiguity on when to act in an authoritative role and when to act in a caregiver role. Results from this small sample size of seven participants revealed misalignment and disagreement occurring with the role change and a lack of clear department policies to define the expectations of this new role.

When expectations are ambiguous or conflicting, failure to meet expectations is likely. Role conflict arises when the expectations of the role are inconsistent with the individual's view of their role and this may lead to dissatisfaction, work-related stress, and subpar performance (Rizzo et al., 1970). Ambiguity, uncertainty in expectations, and role conflict cause people to feel that they are not fulfilling the expectations of their role and this can lead to tension within the role's social system (Radulescu et al., 2020). Both role conflict and role ambiguity can lead to work-related stress (Suparman et al., 2020).

Kimberley and Osmond (2011) noted that changes in role expectations and role complexity can lead to psychological distress. Several of the officers expressed feelings of inadequacy and uncertainty in administering naloxone. Officer 6 spoke about shaking, being scared, and not feeling confident in his medical training when he had to administer naloxone. Officer 7 also spoke of having a physical reaction of shaking and being scared

due to feeling unsure and inadequate during naloxone administration. These feelings are misaligned with the officers' view of their role as strong, confident, and knowledgeable. This suggests that Naloxone administration adds new responsibilities to the officer's role and requires efforts to socialize into the new expectations of the role.

Finally, the fifth concept of role theory explains that roles are often learned through socialization and a person may enjoy or not enjoy the role in which they now are cast. When some law enforcement officers experienced a role change to include naloxone administration it disrupted the social construct that was well engrained into police culture. Officer 6 explained how the dual role created a conflict that placed him in the middle between providing care and upholding law and order. He described this situation as hectic and the impact on him as taxing and uncomfortable. Officer 2 described the role conflict as a double-edged sword because the officers are saving a life, while also allowing criminal activity to continue. He stated that some of his partners are struggling with the new role because they feel cut out of the law enforcement side of their role. Intra-role conflict occurs internally when a person experiences cognitive dissonance between their expectation of the role and the performance of the role (Brzezinska, 2020).

Officer 6 and Officer 7 both stated that they do not believe that naloxone administration should be part of their role, but they continue to meet the expectation. Some of the officers stated that at some point during the transition to their new role, they believed that they should not be expected to perform this role, and some officers stated that they are aware of other officers in their department that do not believe naloxone administration should be part of the law enforcement officers' role. This cognitive

dissonance contributes to job dissatisfaction and work-related stress. When a person experiences role overload, role conflict, and role ambiguity the stress is compounded and the person is more likely to experience dissatisfaction and have poor performance outcomes (Radulescu et al., 2020).

Limitations of the Study

One limitation of the study is that the law enforcement officers who participated in the study may not have had enough knowledge of the subject matter or may have had inaccurate knowledge of the subject matter. An example of this was demonstrated in cases where officers discussed concerns about the negative side effects or overuse of naloxone, even though naloxone has no negative side effects and is safe to administer even in cases where a person is not experiencing opioid exposure (Cordant Health Solutions, 2017; World Health Organization, 2020).

Another limitation may be the officers' ability to communicate their experiences and feelings. During some of the interviews, the officers spoke about how fellow officers often dissociated or compartmentalized to cope with difficult situations, and the officers in the interviews may have been unconsciously exhibiting the same protective behaviors. Romosiou et al. (2019) explained that law enforcement officers develop coping mechanisms to meet the high psychological stamina requirements of their role and Amiot et al. (2017) explained that compartmentalizing thoughts and emotions can become a normative behavior for officers in their daily lives. The lack of knowledge or the inability to share the knowledge may have led to shorter interviews. The longest interview was 60 minutes and the shortest was 23 minutes with a mean of 36.3 minutes. Additionally, there

were challenges getting officers to participate in the study before a payment was offered. Once the study was modified to include a $50 gift card, participants began to volunteer.

A third potential limitation is the degree to which thematic saturation was reached. Efforts were made to achieve data saturation in each interview, as described in Chapter 4; however, this study focused on officers in the US who became officers before naloxone administration was part of their role and had to transition to using naloxone. This could limit transferability because officers from different regions of the US or officers who had previously administered naloxone in other occupations may have different experiences with naloxone administration. The social expectation of the law enforcement officers' roles and the stigmas of opioid users are also dynamic and changing as the opioid crisis expands, and this research represents a single snapshot in time. This creates additional challenges with transferability.

Thorne's (2016) interpretive description was selected for this study because it accounts for all perspectives about a shared phenomenon to honor the inherent complexity of human thought. This complexity of role changes in a fluid and dynamic environment creates challenges with claiming theoretical saturation as traditionally seen in scholarly works; however, for practical applications in qualitative research, Thorne (2020) argued an alternative approach to theoretical saturation by focusing on credibility and coherence in the study from the research question to a logical conclusion. This study has added new texture, richness, and dimension to the understanding of the dual role created by the naloxone program and therefore increases the body of literature in a detailed and in-depth way meeting Thorne's (2020) criteria for meaningful research.

Recommendations

Further research is needed in several areas. This study is the first step, but many areas still need to be explored. In this research, I observed that the law enforcement officers believed the expectation of their role is to be strong and have all the answers, yet they often felt inadequate or vulnerable when making medical decisions. This should be explored further through quantitative research to determine confidence levels of law enforcement officers when making medical decisions. A large study with multiple sites could improve the understanding of how variation in the introduction of the program influences confidence and rates of use.

As more law enforcement departments adopt naloxone programs, more research is needed into how to support law enforcement officers navigating the dual role. This can be explored through qualitative research to gain insight into the types of support systems that benefit officers who have the dual role of caregiver and law enforcer, such as mandatory debriefing following a naloxone administration or increased counseling. Several of the officers spoke about the physical, emotional, and psychological consequences they experienced related to naloxone administration. Additional research should explore the value of mental health services in reducing trauma and work-related stress for officers, such as cognitive behavioral therapy, stress management therapy, eye movement desensitization and reprocessing, or psychotherapy.

Another interesting topic that appeared was the role of spirituality and religion as a coping strategy for law enforcement officers. Several officers mentioned God, spoke about praying during a difficult situation, talked about their spirituality, or spoke about

meditating and praying as coping mechanisms. Additional qualitative research focused on the role of spirituality and religion as a coping mechanism for work-related stress in law enforcement could add another dimension to coping with the dual role of naloxone administration.

Implications

The insight gained in this study has led to recommendations in law enforcement training courses, department policy changes, introduction and rollout programs, assistance for officers with dual role conflict management, and more secondary support outreach and follow-up. For example, the officers in this study all received training to administer naloxone to a person experiencing an opioid overdose, but as Officer 3 pointed out rarely does the officer get to the person in medical crisis and find a needle in their arm. Throughout this study, many of the officers made statements related to feeling inadequately trained to recognize if the person was experiencing an opioid overdose or a different medical crisis. Operational training of administration appeared to be adequate, both in the literature and from the officers in this study, but it is recommended that more training be developed to focus on recognizing the medical signs and symptoms of opioid exposure, the safety of naloxone administration, and any potential risk factors or counter-indications for naloxone use. This training could allow law enforcement to learn from medical professionals with more experience handling overdose emergencies.

Additionally, officers could receive training to better understand addiction. This training could help officers understand the psychological, physiological, and social factors that contribute to the cycle of relapse. This increased understanding could help the

officers to feel less frustration when reencountering individuals with opioid use disorder. Finally, all training should be set annually or more frequently to meet the needs of the department. Frequent training can help officers build confidence and knowledge, which was shown to be an important aspect of their cognitive role identity. Knowledge and confidence in the new responsibility can reduce role conflict and role ambiguity, thereby reducing work-related stress and burnout.

Despite the proven success of the naloxone program to save people during an acute opioid overdose, over 85% of law enforcement departments in the U.S. have not adopted a naloxone program. In this study, it was revealed that most of the officers were resistant to accepting this responsibility because they initially did not see it as part of their role. Based on the findings of this study, a program could be developed to socialize the positive aspects of law enforcement administered naloxone to the politicians, community, law enforcement departments, and other stakeholders in areas that do not have a naloxone program. This could help gain stakeholders' buy-in, and in particular officers' buy-in, to accept naloxone administration as part of the officers' role. Rolling out the program in a positive manner can help reduce both the intra-role conflict and inter-role conflict that can occur when there is a misalignment between role expectations and behaviors, thereby reducing work-related stress on the officer.

As several officers stated, the opioid epidemic will only be stopped with the involvement of all stakeholders. As stated in the literature, naloxone is used to treat the fatal effects of acute opioid poisoning but does not stop addiction. Officers in this study recommended the need for more secondary support system interactions. Since Good

Samaritan laws are in place to remove a barrier to call for help, forced compliance into secondary support systems through arrest and court orders have been lost. As Officer 1 pointed out, the opioid user often has nowhere to go, no support system, and most of their social circle is also using drugs and involved in criminal activity, so relapse is likely. Policies need to be created to bridge the gap created by the Good Samaritan laws between naloxone resuscitation and secondary support systems. Programs should be developed for follow-up, outreach, and check-ins for all people who receive naloxone or who are known by law enforcement to be using opioids. This could include law enforcement officers, social workers, mental health professionals, and volunteers that could check in with the opioid user and provide referrals to available services, peer support, and community support.

Conclusion

The opioid epidemic is one of the greatest challenges the world is currently facing. In the U.S., it continues to be the leading cause of preventable deaths and it costs approximately $80 billion in health care, criminal justice, and lost productivity costs (Rummans et al, 2018). Since law enforcement officers are the most likely public official to interact with opioid users and the first trained professional to arrive at an opioid overdose, equipping the officers with naloxone is the most logical approach to prevent deaths; however, this new responsibility created a paradigm shift in the role of the law enforcement officer creating the dual role relationship. It also creates gaps in the system that makes secondary support and addiction recovery a greater challenge. My research started to understand this dual role and explore the work-related stress that it placed on

the officer. It led me to identify several areas of future research needed to help combat the opioid epidemic.

The consensus among the officers interviewed was that, in most cases, the naloxone does not prevent death, but instead it delays the death since the person is likely to reuse and eventually someone will not call for help or the officer will not make it in time to save them. Naloxone is a stop-gap to a much larger problem that needs to be addressed. For positive social change to occur, stakeholders need to address the overall opioid issue, including the availability of opioids and the rapid increase in opioid use disorder that law enforcement is encountering. The reality is that when a person is suffering from addiction, has no money, is in pain, is depressed, and is hungry, then factor in that a bag of heroin costs less than a meal at a fast-food restaurant, choices for the addict become limited. Naloxone is a very useful tool in preventing death, but it does not cure the disease of addiction and it is critical that stakeholders do not lose sight of that if there is hope to make real positive social change in the opioid epidemic. Otherwise, there will continue to be more than 100 people dying per day from opioids, and law enforcement officers will be at an increased risk for burnout from repeated naloxone administrations.

Although I found role theory to be a fascinating lens to explore this topic of shared experiences and social expectations, it is essential to remember that law enforcement officers are individuals. Some of the officers I interviewed were personally impacted by a friend, family member, or co-worker who struggled with opioid addiction. It is important to not lose the individuality and human side of the members that make up

the group within the role when exploring role theory and the systems in place to interact with the community in this new role.

The results of this study pointed to the challenges role ambiguity creates for law enforcement officers. Ambiguity and fluidity in the opioid users' role (criminal vs person in need of medical care) contribute to the ambiguity and fluidity within the officers' view of their role (law enforcement and care provider) because the expectation of the officers' role is that they will "respond appropriately" to "protect and serve." Without clear definitions around the role expectations of "respond appropriately" and "protect and serve", conflict and ambiguity arise. Department policies and procedures need to be written to eliminate uncertainty for the officers. They need to be clear and concise with easy-to-follow directions so that officers feel confident when carrying out responsibilities associated with this new role. Policies and procedures need to be updated whenever a change is made to the expectations of the officer. Policies and procedures should be reviewed at a set frequency to confirm that they are current and trained on annually by the officers. This will further build knowledge and confidence in this responsibility and reduce role conflict and role ambiguity.

The opioid epidemic is an overwhelming challenge for America. As with many crises, law enforcement officers are on the frontline to deal with this challenge. As such, there is an obligation for community members in areas of opioid use to protect the well-being of the law enforcement officers who are on the frontlines saving lives with naloxone. From studying nurses in caregiver roles, it has been shown that role conflict leads to reduced well-being. This study of law enforcement officers experiencing role

conflict due to their new dual role shows similar reduced well-being. In the study on nurses, Widyasrini and Lestari (2020) found that to improve well-being, the caregivers needed strong social support, strategies to cope with stress, and skills to manage dual role conflicts. Similar findings from the officers emerged in this study.

It is my belief that naloxone programs should be implemented in all law enforcement departments across the U.S. as a precautionary measure for acute opioid overdose. This implementation should be done thoughtfully to include socialization of the positive aspects of the program for the officers, community, and stakeholders, proper training for all officers to aid them in making appropriate medical decisions, and clear policies and procedures to aid the officers in incorporating this responsibility into their role. Additionally, the officers should be given frequent refresher training and they should be evaluated after each naloxone administration to see if additional support is needed for officers. Even with these changes, I strongly believe that until all stakeholders deal with the underlying issues of opioid access and opioid addiction, naloxone administration will only delay opioid deaths, but ultimately will not prevent most of them.

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Appendix A: Invitation

Research study seeks law enforcement officers who administer naloxone (Narcan™) to opioid users to participate in an interview

There is a new study called *"Exploring Dual Roles in Law Enforcement Officers Who Administer Naloxone"* that could help administrators set policies and develop training courses to reduce role conflict and work-related stress associated with Narcan™ administration. For this study, you are invited to describe your experiences of administering naloxone and discuss your views on the roles and responsibilities of law enforcement officers.

This interview is part of the doctoral study for Regina Wachenheim, a Ph.D. student at Walden University.

About the study:

- One 60-90 minute in-person or phone interview
- To protect your privacy, no names will be used in the research

Volunteers must meet these requirements:

- A current or former law enforcement officer
- Worked in law enforcement in the United States before the use of Narcan™ and had to transition to administering Narcan™ to opioid users.
- History of administering Narcan™ at least once while working as an officer or been present when another officer administered it.
- Able to interview in person or via telephone.

Appendix B: Interview Guide

Research Questions		
RQ1: How do law enforcement officers who administer naloxone to people who use opioids describe their experience of the dual role of law enforcer and caregiver? RQ2: How do law enforcement officers experience the gap between role expectations and outcomes?		
Research Questions	Interview Guide	Relevance
Background Questions	• How many years have you been working as a law enforcement officer? • How long have you been carrying naloxone on the job? • Do you patrol in an urban, suburban, or rural community? • How much of a problem is opioid use in your neighborhood? • Roughly how many times have you either administered naloxone or been present when another officer administered naloxone?	General Information
How do law enforcement officers describe their role before the responsibility of naloxone?	How did you see your role and responsibilities when dealing with opioid users before naloxone was part of your job duties?	Baseline of role before changes to role. Biddle (1979) p.8
How do law enforcement officers describe their experience of learning about the new role that they had to assume?	What can you remember about your reaction when you found out that part of your job requirement was to administer naloxone to opioid addicts? • How do you see this new role in terms of your existing role as a law enforcement officer? What is similar and what is different?	Exploring change in role. Kimberley and Osmond (2011) p. 21, Berardi et al. (2021) p. 42,43, Deonarine et al. (2016) p. 43, Ray et al. (2015) p. 43
How do law enforcement officers describe their emotional experience in their new role?	In all the times you've administered naloxone, which experience was most memorable? • What about that experience made it memorable or stressful?	Exploring dual roles and work-related satisfaction or stress. Radulescu et al. (2020) p. 49, Suparman et al. (2020) p. 49, Widyasrini and Lestari (2020) p. 49
Do law enforcement officers experience this new caregiver role differently than their current caregiver role in law enforcement?	Have you saved someone's life with naloxone? • Tell me about that experience • What did that experience mean to you?	Exploring role conflict specific to caregiving in opioid cases. Carroll et al. (2020) p. 44, 45, Gau and Paul (2019) p. 45, Murphy and Russell (2020) p. 44, 45

	• Was that experience different from other times that you have acted as a caregiver such as during a car accident, fire, drowning, or CPR? If yes, how so?	
Do law enforcement officers experience role conflict?	How would you describe your experience of this contrast of saving addicts' lives versus arresting addicts for unlawful behavior? • How stressful or not stressful is this contrast? • Can you give me an example of a time where this contrast was not stressful? (or when it was?)	Exploring dual roles and work-related stress. Radulescu et al. (2020) p. 49, Suparman et al. (2020) p. 49, Widyasrini and Lestari (2020) p. 49
Do law enforcement officers experience role overload?	What does it mean to you to take on this role relative to your other duties as an officer?	Exploring role overload. Biddle (1979) p. 21, Radulescu et al. (2020) p. 22
Do law enforcement officers experience role conflict, role ambiguity, or role overload?	Have you ever had an experience where you have had to act in the role of law enforcer and caregiver with the same opioid user? • If so, what can you tell me about that experience? • Any other incidents you recall?	Exploring role conflict, role ambiguity, and role overload and the relationship with job satisfaction. Lurigio et al. (2018) p. 37, Radulescu et al. (2020) p. 21,22, Rizzo et al. (1970) p.22.
	Can you tell me about an experience where you saved an opioid user's life, and later had to deal with them when they were committing a crime? Or when you had to save an opioid user's life that you previously had to arrest? • What was that like? • What did that mean to you?	Role theory: situational context and role expectations. Biddle (1979) p.47, Radburn et al. (2020) p. 47 Ray et al. (2015) p. 37, Selfridge, Greer et al. (2020) p.47, Selfridge, Mitchell et al. (2020) p. 47.
	Do you think naloxone administration adds to job satisfaction or dissatisfaction, and why?	Widyasrini & Lesrari (2020) p. 46, Suparman et al. (2020) p.46
How do law enforcement officers describe dual role management?	How do you navigate between your role as a law enforcer and your role as a caregiver when interacting with opioid users?	Managing dual roles. Widyasrini and Lestari, 2020

How do law enforcement officers experience the gap between role expectations and outcomes?	What concerns do you have about department policies regarding the naloxone program? What is the biggest challenge you have experienced related to the dual role of caregiver and law enforcer? How would you describe the gap or disconnect between what you are expected to do and the outcome of those actions? What kinds of conversations have you had about your experience with your department administration? Has the administration made changes based on your concerns?	Cognitive role theory: the relationship between social expectations and their impact on social conduct and behavior. Biddle (1986) p. 20, 21, Brzezinska (2020) p. 22 Exploring support, which is needed to reduce role conflict and role ambiguity. Suparman et al. (2020) p. 50, Widyasrini and Lestari (2020) p. 50
How do law enforcement officers view their changing role from the community's perspective?	Do you feel that administering naloxone has changed the way you are viewed by people in the community? What makes you feel that way? (examples) Do you feel that public opinion regarding opioid use and police using naloxone has influenced your view of the role of a law enforcement officer? • What don't people outside of law enforcement understand about what you're asked to do and the consequences of those actions?	Role theory: development of role through social interactions and influence of others through role orientation. Cognitive role theory. Behaviors are influences by opinions of others. Biddle (1986) p. 19, 20 Gau and Paul (2019) p. 48, Koenin and Eagly (2014) p. 19, Sluess (2011) p. 20., Torres et al. (2018) p. 48
How do officers view their new role and what would they change?	Do you think naloxone administration should be part of the law enforcement officer's role? Why or why not?	Exploring personal role expectations and psychological discomfort.

	What do you think is the biggest benefit? What do you think is the downside of this?	Berardi et al. (2021) p. 42, Brzezinska (2020) p. 22, Huey & Ricciardelli (2015) p. 21, Lowder et al. (2020) p. 41, Torres et al. (2018) p. 21
	If you had a magic wand, what changes would you make to the naloxone program and why?	
Wrap up	Is there anything else you would like to discuss that I may not have asked or anything we covered that you would like to discuss further?	Opportunity to add information