

Walden University Scholar Works

Walden Dissertations and Doctoral Studies

Walden Dissertations and Doctoral Studies Collection

2015

Public Safety Impact of Electronic Monitoring of Texas High-Risk Offenders

Paul Utu Aliu Walden University

Follow this and additional works at: https://scholarworks.waldenu.edu/dissertations

Part of the <u>Criminology Commons</u>, <u>Criminology and Criminal Justice Commons</u>, and the <u>Public</u>
Administration Commons

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Paul Aliu

has been found to be complete and satisfactory in all respects, and that any and all revisions required by the review committee have been made.

Review Committee
Dr. Richard Worch, Committee Chairperson,
Public Policy and Administration Faculty

Dr. Mark Stallo, Committee Member, Public Policy and Administration Faculty

Dr. Tanya Settles, University Reviewer, Public Policy and Administration Faculty

> Chief Academic Officer Eric Riedel, Ph.D.

> > Walden University 2015

Abstract

Public Safety Impact of Electronic Monitoring of Texas High-Risk Offenders

by

Paul U. Aliu

MA, Texas Southern University, 2000

MPA, Texas Southern University, 1997

BBA, Texas Southern University, 1990

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Public Policy and Administration

Walden University

November, 2015

Abstract

The use of electronic monitoring (EM) as a tool to supervise high-risk offenders has increased in the field of criminal justice in the state of Texas. Although EM is now widely used to supervise high-risk offenders to prevent them from committing further crimes, it is unclear whether EM has achieved the purpose of reducing reoffenses during parole supervision. Hirschi's social bond theory, which was later developed into social control theory, was used as the framework for this general qualitative study to explore retired parole officers' perceptions concerning whether EM is successful in preventing high-risk offenders from committing additional crimes. Interview data were collected from 10 retired parole officers who supervised high-risk offenders on EM in Harris County, Texas. The findings revealed that the 10 officers perceived EM to be an effective tool, but they perceived the role of capitalizing on positive social bonds was equally important in controlling criminal behavior. Specifically, the officers perceived that their bond with the high-risk offenders on EM could diminish offenders' propensity to commit new crimes. Opportunities for positive social change stemming from this study include recommendations to the Texas Department of Criminal Justice to develop policies and training that is consistent with social bond theory, and retrain parole officers to emphasize to offenders positive contacts and relationship with family and continuing employment during the term of parole release in order to reduct opportunities for reoffense and futher victimization to the community.

Public Safety Impact of Electronic Monitoring of Texas High-Risk Offenders

by

Paul U. Aliu

MA, Texas Southern University, 2000

MPA, Texas Southern University, 1997

BBA, Texas Southern University, 1990

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Public Policy and Administration

Walden University

November, 2015

Dedication

This dissertation is dedicated to my parents, Shaibu Mathias Aliu and Asabi Veronica Aliu, who are no longer with us today. They gave me so much in life that brought me to this stage today. This dissertation is also dedicated to my father in-law, Humphrey Inoghie, whom I never met but whom my wife talks about as bringing her to where she is today. May their souls rest in peace.

Acknowledgments

I would like to state here that I was able to do this through Christ who strengtheneth me according to Philippians 4:13. Therefore, I would like to give thanks to Almighty God, who granted me the opportunity to accomplish this milestone.

I would like to thank my chairman, Dr. Richard Worch, Jr., for his understanding and his patient and incredible guidance during the time that I wrote this dissertation. I am also very grateful to Dr. Mark Stallo, my co-chairman, for his precious contributions and guidance on the methodology chapter of this dissertation

I am also very grateful to my parents, Shaibu Mathias Aliu and Asabi Veronica Aliu, who have gone home with the hope of rising again, for the fact that they provided me the foundation in life for this great achievement. May their souls rest in perfect peace.

My deepest appreciation and love go to my children, Osioreamhe Daniel Aliu, Omolere Ruth Aliu, and Aloaye Abigail Aliu. Seeing them every night doing their homework gave me the zeal to push forward with my study in order to complete my dissertation.

Finally, this greatest achievement would not have been possible without the beautiful wife that I have, Omokhele Rosemary Aliu. It was through her encouragement and understanding that this journey that I started so many years ago came to an end. I would not have done it without her. Omokhele, I love you, and thanks to Almighty God who made everything possible.

Table of Contents

List of Tables	v
List of Figures	vi
Chapter 1: Introduction to the Study	1
Introduction	1
Background	1
Problem Statement	4
Purpose of the Study	5
Research Questions	6
Theoretical Framework	6
Limitations	9
Delimitations	9
Scope	10
Assumptions	10
Significance of the Study	10
Potential to Advance Knowledge	11
Potential to Advance Practice	12
Implication for Social Change	12
Summary	13
Chapter 2: Literature Review	14
Introduction	14
Literature Search Strategy	14

	Theoretical Foundation	15
	Literature Review Related to Key Concepts	16
	Social Bond Theory and the Relationship Between Retired Parole Officers	
	and Offenders	16
	Electronic Monitoring and Recidivism	16
	An Overview of the Use of Electronic Monitoring in the State of Texas	20
	Ethics and Legal Issues and Electronic Monitoring	23
	Positive and Negative Aspects of Electronic Monitoring	28
	Recidivism of Monitored and Nonmonitored Offenders	33
	Electronic Monitoring in Texas Compared to Other States	34
	Electronic Monitoring as the Future of Crime Control	37
	Summary	40
Ch	apter 3: Research Method	42
	Introduction	42
	Methodology	42
	Research Design and Approach	43
	Restatement of the Research Questions	44
	The Role of the Researcher	45
	Setting and Sampling	46
	Data Collection	50
	Data Analysis	52
	Reliability and Validity	53

Presentation of Results	54
Ethical Protection of Participants	55
Summary	56
Chapter 4: Results	58
Introduction	58
Description of Population and Sample	62
Data Collection	63
Findings of the Interviews	65
Research Question 1	66
Research Question 2	71
Research Question 3	75
Research Question 4	79
Results	82
Data Analysis	82
Evidence of Trustworthiness	89
Summary	91
Conclusion	93
Chapter 5: Discussion, Conclusion, and Recommendations	95
Introduction	95
Interpretation of the Findings	97
Limitations	102
Recommendations	103

Implications for Social Change	105
Reflection of the Researcher	107
Conclusion	108
References	111
Appendix A: Interview Instrument	122

List of Tables

Table 1. Common Words and Number of Occurrences	84
Table 2. Emergent Themes Derived From Interviews	85
Table 3. Participants' Responses to Themes	86
Table 4. Participants' Responses Supporting Use of EM to Supervise High-Risk	
Offenders	88
Table 5. Participants' Responses Against the Use of EM to Supervise High-Risk	
Offenders	90

List of Figures

Figure 1.	. Responses	supporting the	he use of EM	I to supervise h	nigh-risk of	ffenders	88
Figure 2.	. Responses	against the u	ise of EM to	supervise high	-risk offen	ders	90

Chapter 1: Introduction to the Study

Introduction

Electronic monitoring (EM) is a tool used by the Texas Department of Criminal Justice (TDCJ) to supervise offenders. Using monitoring devices allows parole or probation officers to know exactly where offenders on an electronic monitor are at any given moment throughout the day (Bales, 2010). This dissertation is about the problem of the use of EM with high-risk offenders in the state of Texas. My aim is to provide a critical analysis of why the TDCJ uses EM to supervise high-risk offenders. In my study, I examined the development of EM and the theoretical implications involving the use of EM in the state of Texas. Further, I examined the balance between the need to protect the public from potential future offences and the need to humanly punish and rehabilitate offenders, focusing specifically on the use and implications of EM in maintaining this balance in the context of the criminal justice system in Texas. In this chapter, I offer the problem statement, purpose of the study, research design, and theoretical framework. This chapter also focuses on the limitations, delimitations, scope, assumptions, and significance of this study and its implications for social change relative to the use of EM in the state of Texas.

Background

The history of EM is linked to the use of home confinement programs, house arrest, and home detention sentences, which in the 1980's were increasingly relied upon by state justice departments in the United States as a response to rising prison populations. Many years elapsed before the practice of house arrest came into the

criminal justice system as a sentence of the court rather than as a short-term condition of bail (Whitfield, 1997)

When an EM device is used, an officer is immediately notified of a violation whenever an offender is not at a particular location on the preapproved activity schedule, which is normally given once a week (Bales, 2010). This type of location is known as an inclusion zone, and can be the offender's home, place of work, or any other place the offender has signed out to be at during the day. An adjustment to this schedule can be made whenever an emergency arises, such as a medical issue. TDCJ policy is that no offender should be denied the ability to go out for a medical reason. EM is also a supervision technology tool that the TDCJ uses for sex offenders to inform an officer whenever an offender is in a location within an exclusion zone such as areas surrounding schools, daycare centers, playgrounds, parks, and any other places where children often gather.

EM was introduced into the criminal justice system for the reduction of jail overcrowding. The use of EM is based on the notion that offenders are at a particularly high risk of acquiring a new charge, becoming absconders, or violating the special conditions that were imposed on them by the Texas Board of Pardon and Parole at the time of their release (Bales, 2010). EM is also used to determine if an offender was at a crime scene when crimes occurred during the monitoring period. EM devices can help to verify that offenders were not involved in crimes, or EM information may be used to send offenders back to jail after an investigation or parole hearing if they were involved in criminal activity.

EM came into use for high-risk offenders after the Texas Legislature of 1977 passed House Bill 2918. This bill required the TDCJ to find a way to supervise offenders whom the Board of Pardon and Parole determined to be a high risk to the public after their release to parole. In this bill, the legislature also required the agency to follow all the guidelines in the Federal Constitution to supervise these offenders so that their constitutional rights are not violated. As a result of Bill 2918, the Parole Division created the Super-Intensive Supervision Program (SISP) to supervise these offenders.

The state of Texas has more than offenders on an electronic monitor who are supervised by parole officers. The use of EM to supervise high-risk offenders alleviates prison overcrowding and is more cost effective than placing high-risk offenders behind bars. Offenders on EM in the state of Texas are placed on two types of monitoring devices: global positioning system (GPS) and EM. GPS is divided into two types, known as active and passive GPS (Barry, 2009). An active device allows a parole officer to determine where an offender is at any given moment through a computer monitoring screen. With this system, an alert occurs immediately whenever an offender enters an exclusion zone or leaves a particular place that he or she is not supposed to leave, such as home. Barry (2010) stated that passive monitoring is another form of EM device used to supervise these high-risk offenders. With this kind of device, the offenders' movements are not known immediately; instead, their activities for the day are sent to the command center through a landline telephone, and their movement for the day is not known until the next day when it is processed and reviewed after the offenders have downloaded their transmitters for daily activities.

In recent years, the use of EM has increased as the United States criminal justice system has worked to meet the pressing challenge of reducing the frequency and social and financial costs of violent crime. Most EM has been used with provisionally released offenders to ensure that they comply with the conditions of their release, and has involved confining offenders to their residences. GPS technology has also been used with domestic abusers and sex offenders to confine offenders to an "exclusion zone" to ensure community safety and the safety of victims (Thomson, 2011). There is strong evidence that EM can result in positive outcomes such as reductions in absconding, revocations, and the commission of new crimes.

Problem Statement

The use of EM as a tool to supervise high-risk offenders has increased in the field of criminal justice in the state of Texas. Despite the fact that EM is now widely used to supervise high-risk offenders in the state of Texas to prevent them from committing further crimes, the question remains: Has the use of EM achieved its purpose? Therefore, the purpose of this study was to examine in detail whether the TDCJ's use of EM for supervising high-risk offenders has achieved its goal of preventing further crimes?

The gap that this study fills concerns whether the use of EM to supervise offenders has achieved its goals of reducing of absconding, revocation, and committing new crimes, and whether EM has helped to keep the public safe. Qualitative researchers study individuals and groups to find solutions to social problems (Creswell, 2009a). I used case study methodology to explore the problem in this study because my goal was to look into how EM affect offender's behavior during the monitored period. Within this

structure, the theoretical framework of this study was social bond theory which I applied in an examination of the implications that punishment can have for society. The criminal justice system of which Texas is a part plays a large role in the process of normalization whereby unacceptable behavior can be punished or modified, whereas noncriminal behavior is deemed acceptable and is promoted as the norm. The use of EM by the TDCJ on high-risk offenders has been deemed acceptable as a state control measure to protect the public and to prevent high-risk offenders from committing further crimes.

Purpose of the Study

The purpose of this study was to examine whether the use of EM to supervise high-risk offenders in the state of Texas has achieved its purpose of keeping the public safe and preventing offenders from committing new crimes. Specifically, I examined effective and ineffective uses of EM and the ethical issues surrounding its use. The results of this study may be used to educate the public about the use of EM to reduce jail overcrowding and improve public safety.

What I intended to understand while conducting this study was the level of sophistication of this device, how it is being improved, how it is used to aiding in the supervision of high-risk offenders, and how its implementation and use keeps high-risk offenders from violating their parole. With this in mind, my specific purpose for this study was to examine how the EM program has helped to reduce the recidivism in Houston, Harris County, Texas, from the perspective of retired parole officers who supervised high-risk offenders on EM.

Research Questions

In this study, I used the qualitative method of research and conducted face-to-face interviews in the form of open-ended questions with 10 retired parole officers who supervised offenders on EM in Harris County, Texas. The following research questions guided this study:

- 1. What is the perception of retired parole officers regarding the use of EM to supervise high-risk offenders?
- 2. What are the effects of EM on high-risk offenders during the monitoring period?

Theoretical Framework

A high-risk offender's behavior may be explained through several theories. One is social bond theory, which I used as the theoretical framework for this study. Social bond theory emphasizes the role of social bonds in the control of criminal behavior (Renzema, 2003). Hirschi's (1969) social bond theory indicates that crime occurs when social bonds are weakened or are not well established. Hirschi and Gottfredson (2001) stated that bonds are based on individuals' connections to those within and outside the family. The level of attachment between parole officers and offenders on EM is important in establishing social bond and thus help to reduce recidividism.

The retired parole officers in this study who supervised high-risk offenders on EM for long periods of time involved the offenders in activities such as manditory substance abuse classes and sex offender classes according to the agency policy. Having smaller caseloads with a ratio of one officer to 14 offenders resulted in closer contact between

parole officers and offenders, suggesting that these high-risk offenders considered the repercussions of their actions based on their relationships or bonds with their parole officers. As Farabee (2005) stated, a potential deterrent effect may operate as a result of increased contact between parole officers and high-risk offenders. Increase contact particularly between parole officers and high-risk offenders can further impact offenders involvement in criminal activities "Hirschi's (1969) social bonding theory argues that persons who have strong attachments to conventional society norms, practices, and beliefs are less likely to commit deviant acts than persons who have weak or shallow attachments (Chriss, 2007, p. 2). Thus social bond theory is valuable because it explains how people who hold prosocial values, norms, and beliefs and who engage in prosocial relationships and; commitments are less likely to engage in criminal behavior.

Definitions of Terms

Absconder: An offender on parole who stops reporting to the supervising parole officer. A warrant is requested after all efforts fail to bring the offender back to supervision (TDJC, 2010).

Active global positioning system (GPS): A device that allows a parole officer the opportunity to determine where an offender is at any given moment through a computer monitoring screen (Barry, 2009).

Electronic monitor: A type of tool to supervise offenders that allows a parole or probation officer to know exactly where an offender is at any given moment throughout the day (Bales, 2010).

Exclusion zone: An area that offenders, especially sex offenders, are forbidden to enter such as a school zone or playground where children gather (Barry, 2009)

Global positioning system (GPS): A supervision tool that uses a satellite and cellular communications networks (Barry, 2009). The GPS is a device carried by an offender that sends data back to a command center to indicate the exact location of the offender for a supervising officer using a computer monitoring screen.

High-Risk Offenders: The term 'high-risk offenders' refers to those people who have been convicted of a sexual and/or violent offence and present a degree of potential harm to the public.

Inclusion zone: A place where an offender who is on an electronic monitor is supposed to be at a specified time (Barry, 2009).

Mandatory supervision: When offenders are released from prison, certain conditions are attached to their release. Offenders who are qualified for mandatory supervision are then placed into these categories; that is, the time that they have served in jail plus good time credits for good behavior is equal to the time that they were sentence to prison. The Board of Pardon and Parole does not have to approve mandatory supervision, but the board still places special conditions on the high risk offender who is about to be released (TDJC, 2010).

Parole: Parole refers to a situation in which an offender has gone to jail and has been released to the free world to serve the remaining sentence under the supervision of a parole officer (U.S. Department of Justice, 2011). The state always has sole custody of offenders until they finish their parole.

Passive global positioning system (GPS): A device that cannot determine offenders' movements immediately; instead, their daily activities are sent to a command center through landline telephones after offenders have downloaded their transmitters each day. Offenders' movements are not known until the next day, when data are processed and reviewed (Barry, 2009).

Recidivism: "A person's relapse into a criminal behavior often after the person receives sanctions or undergoes intervention for a previous crime" (National Institute of Justice, 2010, p. 1).

Super-Intensive Supervision Program (SISP): "An administrative control program designed to provide the highest level of supervision by the TDCJ parole division" (TDCJ, 2007, p. 3).

Limitations

A limitation of this study is that data were collected by one researcher and were analyzed from only one person's perspective. Another limitation to this study was that the offender's perspective was unknown and only retired parole officers were interviewed for this study because the state of Texas does not grant permission to researchers to interview offenders and current parole officers.

Delimitations

This research was delimited to one county in the state of Texas (Harris County). Further, only retired parole officers were interviewed.

Scope

The scope of this study was limited to parole officers in Harris County in the state of Texas because they are the officials who directly supervise offenders on EM. Furthermore, the sample size for my study was 10 retired parole officers in Harris County, Texas, who supervised offenders on EM. The study included in-depth face-to-face interviews, and the data were interpreted with the use of NVivo software.

Assumptions

I conducted this study with three assumptions in mind: (a) EM helps to reduce recidivism rates of offenders in Houston, Harris County, Texas, (b) the use of EM helps high-risk offenders to re-adjust to the community, and (c) offenders on EM adjust to the community because EM reduces crime reoccurrences, which, in turn, helps to increase public safety.

Significance of the Study

Previous researchers including Payne and DeMichele (2010a, 2010b), Payne,
DeMichele, and Button (2008), and Ward (2012) focused on probation and parole
officers as the external monitoring system for high-risk offenders. These researchers
contended that probation and parole officers are the only system designed to monitor
high-risk offenders in the community, including sex offenders, and to protect members of
the public. Payne and DeMichele (2010a) noted that probation and parole officers have
become increasingly involved in a collaborative response to sex offenses in recent years.
Furthermore, DeMichele and Payne (2010b) stated that probation and parole officers
serve as high-risk offenders' "external conscience." This study, unlike other studies,

focused on EM as one of the external monitoring systems used to supervise high-risk offenders that helped to shape their behavior while on EM.

Potential to Advance Knowledge

I examined an existing program within the criminal justice system to find ways to make improvements. Patton (2002) stated that formative evaluations are intended to form or shape the things studied and produce useful and usable results for informing programmatic decisions. Results of this study, therefore, will be shared among policymakers, program administrators, and TDCJ officials to continue the conversation regarding how best to supervise offenders on EM.

The results of this study may also help parole officers more effectively use EM to supervise offenders by helping them gain an understanding of how EM relates to social bonds between the officer, the offender, and the community. Crime affects not only the offender, but also society as whole. To reduce the prison population, the criminal justice system must use EM for high-risk offenders. This study was needed by the researcher to consider changes that can be made for better supervision of these offenders on EM. The use of EM to supervise these offenders is already a widespread practice. The Supreme Court ruled on May 17, 2010, that offenders must be monitored past their parole time, and the only way to do this is to keep them on EM (Mears, 2010). Costs to supervise offenders who are not on EM are greater than for offenders on EM (TDCJ, 2007). Anything that will reduce the prison population and monitor offenders is welcome, but new technology must be developed to test further the effectiveness of EM. The results of

this study indicate how the use of EM by parole officers helped to keep the public safe in Harris County.

Potential to Advance Practice

The results of this study may contribute to the body of existing literature.

Offenders, parole officers, and electronic monitor companies such as Pro Tech may have a better understanding of the utility of monitoring devices based on the results of the study. The study results may also help in efforts to improve the supervision of offenders on EM and enhance public safety.

Implications for Social Change

Technological change is often involved with social change, as reflected in the use of EM on high-risk offenders in the state of Texas. Electronic supervision technology is accompanied by changes in offenders' attitudes and behavior, as well as changes in the community. This social change may help to reflect values of inclusion, fairness, and opportunity not only within the TDCJ system, but also in the broader justice system.

Among the most notable social changes arising from the EM of offenders is that EM allows offenders to have more contact with family members and maintain employment. The use of EM has also demonstrated positive social change in the lives of offenders because EM allows them to spend the remainder of their sentences in the community instead of in jail. Nonetheless, reintegrating offenders into the community remains a contentious social issue. The implications for social change in this study are that the results indicate new ways to reinforce the integration of offenders into the

community and may help to bring awareness of the use of EM for high-risk offenders to the forefront of the field of criminal justice within the state of Texas and beyond.

Summary

Chapter 1 has included an overview of the origin of EM in the criminal justice system, as well as the study's problem statement, purpose, conceptual framework, and definition of terms. The limitations, delimitations, scope, assumptions, and significance of the study and implications for social change were discussed. This chapter also discussed the social significance of this study and the future of EM for the supervision of offenders in the criminal justice system. Chapter 2 includes a review of literature regarding how EM has reduced recidivism, and an overview of the use of EM in the state of Texas. I also discuss Ethical and legal issues in the use of EM, the positive and negative aspects of EM, and how the use of EM in Texas compares to its use in other states. Chapter 3 presents the methodology of the study including the research design, role of the researcher, restatement of the research questions, sample size of the study, data collection and analysis, ethical protection of the participants, and questions of reliability and validity. Chapter 4 presents the data analysis and a discussion of the results. Chapter 5 includes the interpretation of the results of the study, conclusions of the research, and recommendations for future research.

Chapter 2: Literature Review

Introduction

Many people believe that high-risk offenders are dangerous and ready to victimize and reoffend. Offenders and sexual predators are known to commit crimes over and over (Schwarzenegger, 2005). Therefore, the purpose of this study was to examine the responses of retired parole officers who supervised high-risk offenders on EM in order to understand how EM has helped to reduce the recidivism rate in Houston, Harris County, Texas. Specifically, I examined the effective and ineffective uses of EM, and the ethical issues surrounding it.

Literature Search Strategy

In this study, I explored the use of EM with high-risk offenders. In my literature review, I examined the ability of EM to achieve its purpose of keeping the public safe and to prevent offenders from committing new crimes in the field of criminal justice. I used several search tools to identify pertinent literature, including the Public Policy and Administration Database, Sage Publications, ProQuest Dissertations and Thesis Database, Google Scholar and Bing. I used the following terms and combinations of words in my search: electronic monitoring (reduces recidivism), overview of the use of electronic monitoring in the State of Texas, ethics and legal issues in the use of electronic monitoring, positive and negative aspects of electronic monitoring, use of electronic monitoring in Texas compared to other states, and electronic monitoring as the future of crime control.

Theoretical Foundation

Social bond theory serves as this study's theoretical underpinning. Social bond theory emphasizes the role of society in the control of criminal behavior. Hirschi (1969) stated social bond theory assumes that "delinquent acts result when an individual's bond to society is weak or broken" (p. 57). Social bond theory is significant to this study because it emphasizes that most delinquent behaviors result from an offender's lack of social bond to the society in general, and to the family in particular. Relationships with and commitments to set norms and belief structures either encourage or discourage individuals to break the law. Family, friends, and law enforcement are instrumental in promoting the individual's tendency to conform to everyday's law (Hirschi, 1969).

As Deflem (2008) pointed out, social control theory is best understood in the context of law enforcement or the control of crime and deviance. As such, social control theory posits that crime occurs when such bonds are weakened or are not well established. In addition, criminal behavior is accounted for as a result of a weakness of the bonds with society. Hebenton and Seddon (2009), applied the framework of precautionary logic to the problem of protecting the public from high-risk offenders. Hebenton and Seddon also sought to illustrate its significance as a process in neoliberal societies and to refine the theoretical contribution of theorists such as Ewald and Ericson, who argued that in contemporary neoliberal societies is obsessed with uncertainty and increasingly with a simple idea for the regulation of risk.

Literature Review Related to Key Concepts

Social Bond Theory and the Relationship Between Retired Parole Officers and Offenders

Hirschi (1969) argued that individuals are bonded to society, and that when the bond is weak, the individual becomes free to deviate and commit crime. Thus, community supervision officers must balance the need for developing a quality relationship with offenders, with the goals of community and public safety (Skeem & Manchak, 2008). Skeem et al. (2007) examined the quality of the relationship between officers and offenders and found that offender compliance with rules and regulations was related to the quality of the offender-officer relationship. Skeem et al. identified the qualities of positive relationships as a combination of caring, fairness, trust, and authoritativeness, and found that officers who demonstrated these qualities with offenders contributed to the reduction of offender recidivism. When officers supervise these offenders in a manner that embodies principles of effective intervention, they may go far in increasing public safety, given that these principles are more powerful when applied in the community than in institutional settings (Andrews, 2011).

Electronic Monitoring and Recidivism

Bulman (2010) stated that use of EM has reduced the recidivism rate in the U.S. The criminal justice administrators who participated in Bulman's study said they believed the goals of EM has been achieved. Participants noted that offenders on EM complied with the terms of their supervision which allowed criminal justice personnel to track the offenders, protect the public, and thus reduce the recidivism rate. Building on these

findings, Bulman outlined several recommendations for use of EM including that devices should be focused on high-risk offenders who pose the most threat to the public, and that before EM is used more widely, the cost and effectiveness should be considered.

Bales et al. (2010) also supported the idea that EM reduces recidivism. The qualitative research conducted by Bales et al. at Florida University revealed various perceptions about the use of EM. The primary concerns for administrators regarding the use of EM were that the devices make sure offenders adhere to the special conditions imposed on them, that they effectively track offenders' movements, that they reduce recidivism, and that they ultimately protect the public. Overall, administrators said that although EM achieved these goals, they also saw ways to improve the system. Bales et al. further stated that although administrators saw monitoring as a tool that helps parole officers to do their jobs, EM is not a replacement for personal contact with offenders, EM should go hand in hand with the development of a social bond with the parole officers.

According to the National Institute of Justice (2011), the use of GPS EM devices is more effective at reducing failure to comply than is the use RF devices. NIJ administrators viewed EM as a tool that helps parole and probation officers do their jobs, not as a replacement of personal contact with high-risk offenders. Wroblewski (2008) noted that EM has been in use by both United States federal and state corrections departments to monitor offenders who are released into the community. EM's use is widely accepted by many corrections professionals because EM is effective in limiting correctional costs and in reducing recidivism among offenders. Lowenkamp, et al. (2010) questioned the idea of whether intensive supervision programs and the principle of

effective intervention matter, and a series of other studies questioned whether EM of high-risk offenders actually reduces recidivism. Renzema and Mayor-Wilson (2005), found no evidence that EM reduces recidivism. These studies have argued that EM, and especially GPS EM, allows supervising officers to know where the high risk offender is at all times, but that this knowledge does not prevent the high-risk offender from committing a new crime because high-risk offenders can easily cut off the stripe and then abscond. The present study therefore considered the effect of EM on offeneders and their family.

Although a householder memorandum of agreement is always given to a family member to sign before an offender is released, how the everyday activities of the offender's movements will be monitored by the EM device cannot be fully explained to family members. Bales et al. (2010) stated that EM affects not only the offenders but also those with whom they live and that offenders reported that EM caused sweeping changes in their work and family lives. These studies failed to point out the negative effects of EM on offenders and their families, especially the children in homes where offenders are monitored with EM.

Tella and Schargrodsky (2010) found that among individuals formerly in prison, those on traditional parole had a 22% recidivism rate and those on EM had a 13% recidivism rate. One possibile way to account for this difference is that offenders on EM have less punitive experiences, but Tella and Schargrodsky further stated that this account of such differences is not entirely clear. Theories vary about why electronically monitored offenders have a reduced recidivism rate. Sherman and Strong (2007) stated

that the use of this device is a way to keep offenders away from the hurting general public. Sherman and Strong further raised numerous questions (whether or not the restorative justice works and what type of impact a restorative justice program would have) regarding EM of offenders, indicating a need for further research. According to Thomson (2011), reducing the frequency of and social and financial costs of violent crime is a pressing challenge for the United States criminal justice system. The increased use of EM has been one response to this challenge and has been used by corrections departments for nearly three decades to supervise criminal offenders. EM has been used by criminal justice department for supervising offenders in a wide veriety of setings

The assumption underlying most traditional applications of EM was that provisionally released offenders comply with special conditions imposed by the justice system, such as confinement to their residences during a specified period of time (Thomson, 2011). Thomson stated that GPS technology, which has been employed to track high-risk offenders including sex offenders, led to the use of EM to confine offenders to an exclusion zone into which offenders cannot go to ensure community safety and the safety of victims (Thomson, 2011). The greatest use of EM has been to track offenders, mostly to keep them away from areas such as near the homes of a previous victim and school.

EM researchers have explored the reasons why traditional penalties have not dissuaded offenders from engaging in repeted criminal behavior. Thomson (2011) attributed recidivism to failed education systems and the breakdown of social structures such as the family in the United States. Thomson noted that the US has less than 5% of

the world population yet leads the world in the number of persons incarcerated (more than 2 million).

Recidivist offenders are responsible for the majority of criminal acts in the United States (Thomson, 2011). "In a study by the Justice Department's Bureau of Justice Statistics, which tracked recidivism of released offenders throughout the United States, approximately seven out of 10 released inmates committed at least one serious new crime within the following 3 years. Within those same years, 52% of the former inmates were back in prison either because of a new offense or because of a violation of release conditions. Among those with at least three prior arrests, 55% were rearrested. Among the most serious repeat offenders, that is, those having at least one prior arrest, 82% were re-arrested within the same 3-year period, and this figure did not take into account any new crimes the former inmates committed for which they were never caught" (Thomson, 2011, p. 2). Using extended GPS monitoring for the group of offenders that commits the majority of crimes might offer the long-waited solution for crime reduction in communities.

An Overview of the Use of Electronic Monitoring in the State of Texas

In Texas, community partnership councils were set up in each town to assist the parole and probation officers, which are separate in Texas. A range of programs was developed that embrace approaches such as the emerging community corrections movement, zero-tolerance programs, and imaginative prevention initiatives, which led to the use of EM in Texas in 1997.

As Ward (2012) pointed out, parole officers are now able to track his/her their movement with EM and the risk assessment tool to supervise high-risk offenders to ensure the public is kept safe. These kinds of supervising tools are responsible for drop of prisoners in Texas. Ward also noted that the TDCJ posted its lowest head count in 5 years despite the fact that the state overall population continued to grow rapidly. "Instead of 156, 500 prisoners in 111 Texas state prisons in 2011 the lockups now hold just over 154, 000, a drop of about 2,500 prisoners, according to state statistics. Texas, which historically had one of the highest incarceration rates per capita of the 50 states, is now in fourth place, down from second place in 2010" (Ward, 2012, p. 1).

According to the TDCJ (2010b), the agency uses two types of EM. One is the Super Intensive Supervision Program SISP and the other is EM for sex offenders. The GPS allows the agency to monitor high-risk offenders' movement every minute of the day, with approved activities scheduled in advance. Presently, the state has about 1,700 offenders being monitored with GPS and 1,200 offenders who are monitored on RF, especially sex offenders. These types of monitoring caseloads are supervised by specialized parole officers who have been with the agency for more than 1 year. The Florida Department of Corrections (2006) referred to RF "as a type of EM system that uses a bracelet attached to the offender and electronically tethered to a receiver with phone communication capability that provides offender monitoring during the hours of home confinement. This system monitors the offender's presence or absence from the home" (p. 9). Monitoring offenders is supplemented by a daily activity schedule that is approved by the supervising parole officer one week in advance, a minimum of six face-

to-face contacts a month, a drive-by visit from the parole officer, and a range of specialist programs in which the offenders are required to participate. According to the TDCJ Parole Division (2010), the daily activity schedule by the supervising parole officer one week in advance is supplemented by Electronic Monitor. The monitoring beyond EM is part of family and children enhancement services focusing on parenting practices and parent-child relationships, which are designed to reduce the chances of offenders' children committing crimes and constitute a long-term investment. The TDCJ Parole Division also stated that the recidivism rate among offenders on EM fell from 53% to 35% over the years.

The success of EM in Texas prompted other states to use similar devices to supervise offenders (Button, DeMichele, & Payne, 2007). Padgett, Bales, and Bloomberg (2006) studied GPS in Florida and found that offenders on EM have fewer revocations of parole and commit fewer crimes than offenders not on EM. They also pointed out that these high-risk offender's parole cannot be revoked easily on technical violations. The limitation of this study is that it did not elaborate on the kind of technical violations that normally result in sending these offenders back to jail.

Payne et al.(2008) noted that training and allocation of funds for this kind of program are key to crime prevention, and policies must be in place for such programs to run successfully. Payne et al. further stated that the duty of supervising high-risk offenders does not have to be left with one institution alone like the TDCJ; rather, a collaborative effort is required to make such system work. Current protocols for the use of GPS to supervise high-risk offenders for crime prevention, especially sex offenders,

place the monitoring burden on parole and probation officers who are frequently already overwhelmed with caseload with no overtime to do their job. This crime prevention role exceeds what can reasonably be expected from parole and probation officers responsible for controlling crime in society.

Ethical and Legal Issues of Electronic Monitoring

Two debates emerged over the use of EM of offenders since it was introduced into the criminal justice system. One of these debates concerned the legality of EM use and whether it infringes on individual constitutionality rights. According to the John Howard Society of Alberta (JHSA, 2006), when EM was first introduced, there were concerns that offender's constitutional rights might be violated; for example, EM could infringe on an offender's rights to privacy and equality under the law. The more fundamental debate, however, centered on the ethical issues surround all kinds of surveillance, the extension of social control, and the intrusiveness of equipment that have implications well beyond offenders.

Dante (2012) further pointed out that the trend in the law has been to place high-risk offenders, including sex offenders, into a form of external exile upon release from prison and to restrict their rights in ways that exclude them from major aspects of society. The use of EM postincarceration, especially GPS, is the latest manifestation of this notion of internal exile that allows the government to know where such offenders are at any given time of the day. There are privacy issues and other limitations inherent in the use of EM tracking of these offenders that lead to an invasion of their rights. The limitation of this study is that Dante did not point out how offenders' rights are violated.

The use of EM of offenders began with the belief that it will help to save agency costs and reduce jail overcrowding (Ward, 2009). Today EM is part of the criminal justice agency tools used by parole and probation officers in the United States to manage offenders. Despite its wide use today, some people, especially in the political and social system, believe it is unethical. Ward stated that some family homes have been turned into a prison environment because of EM to supervise offenders. The offender has limited movement within the home and outside, and families of the offenders are also limited because of the presence of this device to monitor the offenders. Ward's research showed that the ability of the parole and probation officers to be able to manage and control the activities of these offenders who are no longer in jail is the reason for using Electronic Monitoring. However, with the use of EM, the majority of the offenders feel that their privacy and that of their family is violated.

Members of society, whether policymakers, judges, or community corrections administrators, are interested in providing effective public safety interventions with as few resources as possible (DeMichele & Payne, 2009a, p. 45). The question that this study did not address is how this can be done based on budgets cuts in a weak economy. Effective community supervision strategies that focus on public safety must be developed. The use of EM to supervise high-risk offenders by the criminal justice system is one strategy.

The United States Department of Justice Development Services Group (2012) noted that EM programs appear to result consistently in lower recidivism rates for high-risk offenders. The use of EM has two distinct advantages: it reduces public tax burden

by allowing these offenders to work and reduces the human and financial cost associated with incarceration. However, certain negative consequences accompany this type of supervision technology, such as stress for the officers. Further, the many violations that are not reported could lead to disaster. Gies et al. (2012) noted that despite the increasing number of high-risk offenders who are electronically monitored, not much is known about the capability of EM devices in increasing offender's compliance and in reducing recidivism. The limitation of Gies et al. is that the researchers did not identify how this device aides parole officers to supervise these offenders.

Vollmann (2009) noted that the use of EM of high-risk offenders is not a new tactic. Ethical questions have always arisen from the people who believe that EM is another type of jail in their home and that the Criminal Justice System is violating the offender's privacy. While Vollmann pointed out that the use of EM is necessary for offenders, the researcher did not elaborate why such devices are needed.

Despite the worldwide use of EM, many legal and ethical issues dominate its use in the criminal justice system today (Bottos, 2007). Since EM's inception in the early 1980s, the focus shifted from legal and ethical concerns to economic aspects of EM. The JHSA (2006) stated that systematic issues arose from the use of EM. The increasing growth of electronic programs made members of society aware of the above issues and how they can be minimized so that offenders can be supervised in a humane manner.

When EM was introduced as means to supervise high-risk offenders' activities, one of the major concerns was how their constitutional rights would be protected (Bottos, 2007). Infringement on offenders' right to privacy was also a concern to the criminal

justice agencies using EM. To address the problem of privacy, offenders and their sponsors must be fully aware of what is expected of them by correctional administration before any kind of EM system is put into place. An offender has the right to either accept or reject being placed on electronic monitor (JHSA, 2006). Bottos wrote that in addition to invading offenders' privacy, EM also affects other members living in the same home with offenders because their phone lines are restricted. For this reason consent is always required by the administration, but often full disclosure is still not present. The result is confusion for the offender and other adults living in the same home about the actual terms in the agreement. On the other hand, criminal justice administrators believe that such terms in the agreement explain all the hardships that may be encountered, such as movement restriction. Offenders themselves regard wearing the equipment as the main disadvantage of EM. A limitation of this study is that Bottos did not state if the offenders were fully aware of all consequences before being released and placed on EM. Further, the family was not notified about what is being placed in their residence to monitor the offender.

The use of electronic monitoring is now accepted by the civilized world to reduce crime (Igbal & Lim, 2008). GPS began to receive much-needed attention in court cases, and it was used in many court cases, when admissible, to either acquit or convict an offender. Igbal and Lim noted that the legality of GPS data, which can be altered when admissible into court cases by people who have the ability to do so to suit their cases, has not been debated. The theme of Igbal and Lim's article is that the use of EM to supervise offenders may result in an unfair guilty conviction for offenders. Igbal and Lim presented

the case for implementing GPS use to trace and locate offenders, and GPS technology is widely accepted for EM. Many states, including Texas, now use GPS for tracking the most high-risk offenders, especially sex offenders living in the community (Texas Department of Criminal Justice, 2010a). The whereabouts or location of high-risk offenders can be achieved with the use of GPS and unusual activity can be predicted.

Roman, et al (2012) noted that EM was useful from pretrial to parole. EM allowed the authorities to monitor and verify whereabouts of high-risk offenders, to detect when offenders violated the terms of community supervision, and to administer appropriate sanctions. The limitation of this study is that the researchers did not point out how this is being done.

Rollwagen and Brunschot (2012) further noted that the use of EM technology changed the concept and assessment of risk. Because GPS technology allows authorities to monitor the whereabouts of offenders in real time, This information can inform offenders' history and patterns and result new type of risk assessment and one that is culturally variable. Spidell and Cornish (2010) emphasized the importance of an adequate assessment of individual risk and criminologenic need factors that criminal justice agencies must consider when using EM on offenders.

According to Gable (2009), parole and probation officers are responsible for bringing about changes in the person under supervision. During the 20th century, the U. S. Congress and Federal enunciated a proposition that offenders convicted of crime should be given the opportunity to reform themselves before and after incarceration. During this time parole and probation in the criminal justice system were accepted, with

rehabilitation as a primary goal (Gable, 2009). Gable further stated that the civil liberty of these offenders was used as the necessary condition for offender rehabilitation while simultaneously assuring public safety, which is the primary goal of this monitoring. Parole or probation officers have the power to recommend revocation based on the officer's effort to facilitate rehabilitation. The parole or probation officer has the power to enforce the special conditions imposed on offenders and monitor their progress. The judicial system has sided with the criminal justice system in their ruling that offenders' constitutional rights are not violated and that the use of this technology to supervise them is justified as a necessary condition for their rehabilitation while simultaneously assuring public safety.

Positive and Negative Aspects of EM

The use of EM devices to supervise high-risk offenders is one of the most recognized technologies within the criminal justice system today (Gable & Gable, 2007), but there are positive and negative aspects associated with its use. Blackwell, Payne and Provost, (2011), also noted that "the rise of the EM device for management of offenders within the criminal justice system today necessitates increase collaboration of criminal justice personnel with private sector companies that provide monitoring services" (p. 1) like the Protech company based in Florida for Texas Department of Criminal Justice; however, there are positive and negative aspects associated with its use. Because of the negative aspects, some public officials call this type of technology an electronic jail or another form of jail. Gable and Gable (2007) stated that the primary argument in recent years for adopting EM technology was to relieve prisons from overcrowding and reduce

agency costs in order to provide another form of incarceration. DeMichele and Payne (2010b) also noted that the supervision of offenders with EM for lower level offenders can help a gradual release back to society.

Harlow (2011), who had 19 years of experience as a parole officer for Kentucky's Probation and Parole Department, also noted that the use of EM devices as sanctions proved helpful in the management of high-risk offenders, including sex offenders, in various communities. Yeh (2010) indicated that "EM could be an effective for deterring crime when used early enough with habitual offenders and have significant social benefits" (p.1). Yeh, however, did not specify how this could be achieved.

Using EM devices to trace and record offender's movements can be a powerful preventive measure against criminal activities (Barry, 2009). EM devicies can help law enforcement personnel solve crimes because EM devices offer proof of whether or not an offender was at a crime scene. (Barry, 2009). According to the Tennessee Board of Pardon and Parole (2007), the analyzable data provided by , EM gives parole officers more accurate information about offenders' whereabouts and activities, and allows parole officers to intervene if necessary. DeMichele and Payne (2010a) noted that some researchers argued that EM can have a direct effect on offender behavior. EM may not necessarily be a factor in offenders' decisions to commit a new crime, but it might make offenders more aware that they likely will be caught if they violate other conditions of their supervision.

Sipes (2009) pointed out that the use of GPS can help community supervision officers' to better protect the public. High-risk offenders under community supervision

have less opportunity for criminal activity and noncompliance because GPS tracking monitoring these offenders' whereabouts 24 hours a day. However, Sipes did not indicate how this is done.

DeMichele and Payne (2009a) also noted that technological devices to monitor offenders "are inanimate objects or machines that should be understood as tools with the potential to improve community supervision when appropriately implemented, evaluated, and adjusted despite the fact that electronic supervision tools are relatively new to the community corrections field. However, they are not magical and require humans to operate them" (p. 28). However, DeMichele and Payne did not adequately address how parole officers do this.

Another benefit of EM, according to Barry (2009) is the use of EM spares offenders from the negative effects of incarceration. EM also helps them to comply with their special conditions of release and with reentry and rehabilitation. "EM also reduces societal costs because offenders are employed, pay taxes, and are able to provide for their families" (Barry, 2009, p. 9). Barry also noted that the most significant aspect of the use of this technology, especially GPS, is that it is possible to track offenders any where they go, for example, to work, travel, and even swimming.

Marklund and Holmberg (2009) noted that despite the benefits of EM, "the meta-analyses published to date on the use of EM on offenders offer little evidence that the use of this device in the home in lieu of a whole or partial prison sentence reduces reoffending. Calderbank (2012) also noted that EMs are being placed on offenders convicted of minor offenses who should not be electronically monitored. EM should be

used more creatively to justify the cost. Creative use includes not only controlling and restricting offenders but also helping them to change their behavior (Calderbank, 2012).

The limitations of the above articles are that they fail to point out the limitations of EM in the criminal justice system. EM places a large burden on parole and probation officers. An active GPS for example, generates a large amount of data that must be analyzed (Gotts & Foster, 2006). Gott and Foster cited an Orange Country, California, study that indicated EM generates an average of 19 alerts per day. Malan and Sussman (2008) noted that in Arizona, a GPS program with 140 monitored offenders generated 35,000 false alerts in the first year of operation alone. These false alerts can result from interruption of signals, inaccurate reading of the offender's position through the map, and batteries that are not fully charged and can create problems for offenders.

Other issues that accompany EM include budgeting within the criminal justice agency and what the officers go through to supervise offenders with EM devices. Miller (2012) noted that evidence to support the use of EM to manage high-risk offenders has historically failed to keep pace with the increased use of the technology, especially in the United States. Despite having those who are working pay fees to cover the cost of the monitoring, they also have to deal with other problems that come with this type of technology, such as charging their batteries all the time, acknowledging the alerts, and other technical problems that may arise while they are being monitored with EM.

Offenders suffer the most from humiliation because they are unable to cover the device while they are in a public; thus, anyone who knows about EM technology will know that offenders are on parole or probation.

Monitoring of offenders is a form of remote control of offenders' space and time (Nellis, 2011). Because offenders are continuously monitored, EM controls more of an offender's daily life than intermittent contact with a probation or parole officer. EM of high-risk offenders requires consent from and cooperation of the offender; otherwise, EM will not work (Nellis, 2011).

Armstrong and Freeman (2011) noted the Texas Legislative mandate that required GPS monitoring of high-risk offenders added to the existing operational complication of community supervison and in most cases, putting offenders in prison is another way to create the most dangerous criminals. Offenders are not trained with the necessary skills while they are in jail for survival when they are released, which normally results in their returning to jail. Using GPS to monitor offenders is less costly than taking care of them in prison. There are about two to three million people in prison, some for nonviolent crimes, who could serve time at home with the use of GPS. EM, with the use of GPS, can reduce prison costs (Armstrong & Freeman, 2011). Many states are using GPS to monitor offenders by giving them early release from jail. The use of GPS for offenders contributes to their rehabilitation and enables them to work, pay their taxes, and attend to all their daily activities. Thus, the use of EM devices helps offenders to contribute to society rather than be a burden to society.

The U. S. attorney general made headlines in recent months about the need for smart sentencing and few offenders behind bars. However, Carson (2013) pointed out that a report released by the Bureau of Justice Statistics showed that despite the federal prison population declining for the first by 0.9 percent in 2013, the overall prison

population increased slightly by 4, 300 prisoners or 0.3 percent. This increase was the result of adding 6, 300 offenders into state prisons, a 0.5 percent increase from 2012. Some of these offenders committed nonviolent crimes and could have serve time at home with the use of EM.

Recidivism of Monitored and Nonmonitored Offenders

EM has helped to reduce failure compared to offenders not on EM (United States Department of Justice, 2011). About 650,000 offenders are released every year from both state and federal prisons. Some of these offenders are placed on electronic monitors as part of early release. Greater numbers of offenders are released from county jails and other correctional facilities and are also placed on electronic monitors. More than 50% of individuals released from incarceration are in some form of legal trouble within 3 years (United States Department of Justice, 2011). These individuals not only present a threat to public safety and property, but also affect spending on law enforcement. As a result of efforts to reduce the recidivism rate and related costs, officials in public and private agencies explored a wide variety of structured monitoring programs to ensure the successful re-entry of offenders back into communities. EM was devised as a means of supervision and has proven to be an invaluable asset in the success of these types of reentry programs.

The number of offenders being revoked in Texas has sharply declined (Texas Department of Criminal Justice, 2010a). Texas earned national acclaim for avoiding catastrophic prison overcrowding in part because of the use of EM. In addition, revocation rates dropped dramatically from 11,311 in 2004 to 6,678 in 2010. These

numbers showed a drop of offenders committing new crimes and a drop in technical violations because of better supervision of these offenders with EM.

Electronic Monitoring in Texas Compared to Other States

Texas Department of Criminal Justice Electronic Monitoring Program Parole Division (2010) noted that the State of Texas supervises high-risk offenders in Super-Intensive Supervision Program (SISP) and by EM. The SISP offender is monitored by GPS technology, which allows the parole officer to ensure that the offender complies with a pre-approved curfew. Each of the parole officers reviews the offender's case for possible recommendations for withdrawal from the program on the anniversary of the date that the offender was placed on the caseload. The offender remains on SISP until the Texas Board of Pardon and Parole withdraws the special condition or the offender is discharged from the sentence. On average, there are approximately 1,500 offenders on SISP who are supervised at a ratio of 14 offenders to one parole officer (TDCJ, 2015.). "EM in the State of Texas augments the supervision of offenders by monitoring compliance with a preapproved curfew schedule" (Texas Department of Criminal Justice Parole Division, 2010, p. 1). Offenders who have special condition EM are monitored with RF technology and have a transmitter attached to their ankle and Home Monitoring Unit (HMU) placed in their home. Reviews are done at the end of 60 days to determine if offenders have met the requirements of their special conditions. The information is sent to the Board to determine whether to withdraw or continue EM. "As with SISP and all other special conditions, only the Board of Pardon and Paroles has the authority to withdraw any special conditions placed on offenders before they were released. On

average, approximately 1,100 offenders are supervised, with a ratio of 25 offenders to one parole officer" (Texas Board of Pardons and paroles. 2009, p. 2). A limitation of this literature is that it did not address the fact that the parole officer may be working with as many as 35 caseloads.

Texas is not the only state to use EM. EM was approved by the Florida legislature in 1987. The Florida Department of Corrections began using RF systems in 1988 for house arrest cases where offenders were required to be at home during certain hours of the day. RF devices allow a supervising officer and the monitoring headquarters to know whenever an offender breaks a home curfew. Offenders wear ankle bracelets that communicate with a base unit connected to the offenders' landline telephone at their residence. The bracelet ankle monitor alerts the monitoring headquarters whenever the offender leaves home or moves away from the base unit at disallowed times (Bales et al., 2010).

Florida started using GPS technology in 1997 (Bales et al., 2010). This technology uses global positioning satellites to trace offenders' movements in any given moment of the day. Offenders must wear an ankle bracelet that communicates with a larger device that they must carry. This device must be visible at all times. The monitoring device communicates with a satellite and then sends a signal to the monitoring headquarters by using a cell phone system. The bracelet also has a screen that displays messages from supervision officers providing information, such as whether offenders have entered a restricted zone and should leave the location immediately. An exclusion zone can be set up around the offenders' houses or places of work where sex

offenders on EM may be required to avoid locations such as daycares or schools. The system sends an alert to a supervising officer if offenders enter an exclusion zone. Florida also uses the passive GPS that stores GPS data information throughout the day and sends this information to the supervising officer the next business day. Florida started using this technology in 2001 but ended it in 2006 because of the cost (Florida Department of Correction, 2006).

Killias, Gillieron, Kissling, and Villettaz (2010) observed that many states are beginning to see the benefits of using EM because high-risk offenders on EM commit fewer offenses than while under community supervision. Killias et al. noted that originally practitioners referred to EM as a device applied primarily to people. However, prison overcrowding and state budgets have made EM an alternative of choice. For example, San Francisco County embarked on a plan to triple the number of people on EM while legislators in Louisiana, which has the nation's highest per capital incarceration rate, considered initiatives to release large numbers of offenders by using EM (Killias et al., 2010). Texas and Florida supervise offenders on EM in the same way, although Florida stopped using the passive GPS because of the cost. California, like the state of Texas, now uses GPS to monitor high-risk offenders to improve public safety. Like Texas, California uses GPS to help parole officers and local law enforcement trace and supervise the most dangerous offenders in society. The State of California monitors all sex offenders with the GPS monitor. GPS monitoring systems are also used to supervise and trace the movements of these offenders on parole in California. California's universal use of GPS differs from that of Texas because not all sex offenders are placed on GPS

monitor in Texas. Texas now has a bill that allows prosecutors to seek life without the prospect of parole for offenders convicted of sex crimes and for repeat offenders. Texas now also has a team of experts from the office of the attorney general, parole division, and local law enforcement agencies, known as the Sex Offender Parole Violation Team, to arrest these dangerous offenders who violated their parole. The team is also responsible for coordinating with other local law enforcement agents to conduct additional checks for predatory sex offenders and apprehension of parole violators.

State officials in Alaska also decided to use EM for offenders because the state prisons are full and crime has not been reduced (Alladina, 2011). Officials decided that the only way to control the high costs of criminal justice, to keep the public safe and to make sure that offenders get the punishment they deserve is to use EM as an alternative to incarceration, as Texas does.

In the present study the effectiveness of EM techology for supervising offenders and reducing the need for incarceration was considered. The extent to which offenders have greater freedom despite drawbacks involved in wearing a visible device was also explored.

Electronic Monitoring as the Future of Crime Control

EM came into being with the hope that it would solve jail overcrowding and help in offenders' rehabilitation. However, the system was poorly designed initially, and only after 20 years of use, when implementation of EM spread rapidly, has it improved (Burrell & Gable, 2008). EM will continue to grow rapidly and expand in new directions. As Hill (2010) reported, the use of EM on offenders as alternative to imprisonment was

one of the recommendations made to the 12th annual United Nations Congress on Crime Prevention and Criminal Justice Conference that was held in Salvador, Brazil.

According to Sipes (2009), the use of GPS has grown throughout the United States and the number of offenders monitored grew by more than 60 % each year. Fry (2010) further noted that the incarceration of offenders who break the rules of their parole is one of the major reasons for the rapid growth of the prison and jail population and accompanying cost. The United States is now the world leader in incarcerating its citizens based on a report released by Bureau of Justice Statistics (McCormack, 2014).

The rapid growth of the use of EM technology to supervise offenders has made it the future of crime control. Despite this popularity, an important question to be asked is: to what extent should this technology be used to supervise offenders in the future?

Offender populations continue to rise, jail overcrowding has not diminished, and money to keep maintaining these offenders behind bars is a perpetual concern for the criminal justice system. The question then becomes: is the use of this technological tool to supervise offenders the answer to crime control? The current literature does not provide definitive answers to this question; therefore, this question was considered in the present study.

Gable (2009) noted that improvements in GPS monitoring technology, such as reducing the size of the monitor offenders must carry, are more practical and reduce the costs of monitoring. The use of GPS monitoring imposed sanctions on high-risk offenders at little cost, helped offenders comply with their special conditions, and

discouraged them from committing future crimes. The GPS monitor may one day replace RF in the future.

Martha Stewart, the well-known U. S. businesswoman and television personality, was placed on EM after she was convicted of inside knowledge about stock trading and was later released to be placed on electronic monitor within her estate. Another noted figure placed on EM was Bernard Madoff, who stole more than \$50 billion of his clients' investment money. He was made to wear the electronic monitor before he was later sentenced to life in prison without parole (Drake, 2009).

Barry (2009) believed that EM technology will improve crime control policy if properly harnessed. Despite the fact that EM of offenders gained much ground as a supervision tool, its continued success depends on support from the general public, political leaders, and criminal justice administrators. DeMichele and Payne (2009a) stated the prison population will continue to increase, and states are turning to EM of offenders compared to 30 years ago. Because of the national economic downturn, many states requested their criminal justice agencies to release offenders early and place them on EM to reduce costs.

DeMichele and Payne (2009a) further argued that the recent mass use of EM devices and offenders' willingness to use them rather than remain in prison was because of modernization of the technology. Incarcerating people in the past 3 decades in cases related to social problems, poverty, homelessness, substance abuse, and other nonviolent offenses failed to show positive offender behavior modification. DeMichele and Payne pointed out that what is needed to address these problems and jail overcrowding is for all

criminal justice agencies to work diligently with the public and local law enforcement agencies for better offender integration into the society. EM of offenders plays an important role in accomplishing the goal of better supervision of offenders on parole.

According to Nellis, Beyens, and Kaminski (2013), while it is significant to perceive that the use of EM had not been as punitive or transformative as advocates for its use had hoped, some opponents feared the use of EM on high-risk offenders when it was first introduced more than 30 years ago into the criminal justice system. Little research has been carried out about the use of EM and whether it is an effective way for crime control. What is known is that there is public interest in the use of EM to save money, reduce jail overcrowding, or reduce recidivism. EM is expected to remain a popular means of supervising offenders in the criminal justice system. Nelllis et al. further indicated that there is much more to be said about the use of EM today than has been said before. Burrell and Gable (2008) also noted the limited research on the use of EM and its effects on reducing recidivism even after offenders are taken off the monitor. They suggested that the goal of using EM will be better achieved within the context of social learning theory.

Summary

Much research had been done about using EM in the criminal justice system.

Despite the acknowledgement by criminal justice officials that EM is a valuable tool for supervising offenders in society, much research still needs to be done about the use of EM and its effectiveness in monitoring high-risk offenders. As Drake (2009) noted, almost all prisoners incarcerated will one day return to the communities in which they

and others live. Most criminal justice agencies decided to use offender tracking technology for these high-risk offenders. The use of monitoring equipment works for measuring time and location. Elements of social bond include attachment to families, commitment to social norms and institutions and involvement in activities.. In Chapter 3, I will address the methodology and my role as researcher, and will include a restatement of the research questions, sample size, data collection practices, ethical protection of participants, and reliability and validity of the data.

Chapter 3: Research Method

Introduction

In this study I examined the use of EM to supervise high-risk offenders in Texas. Based on the theory presented in Chapter 1 and literature review in Chapter 2, I found that researchers' views vary about the type of technology best suited for supervising offenders. In this chapter I will present the research method for this study. I used a qualitative method to gain more understanding about the use of EM on high-risk offenders. To understand the full context and implications of EM, I used the case study approach to gather more information from interviewing retired parole officers. In the sections that follow, I discuss the methodology, research design and approach, research questions, my role as researcher, setting and sampling, and data collection and analysis. This chapter also includes a discussion of the reliability and validity of the data, a presentation of results, and a discussion of the protection of participants' rights.

Methodology

In this study, I used the qualitative method of research. Qualitative research can be used to study individuals and groups and find solutions to their social problems (Creswell, 2009). This approach provided data that I interpreted based on the retired parole officers' answers. The quantitative method would not have been as effective as the qualitative method because qualitative method provided me a better understanding of how the interaction between high-risk offenders on EM and the now retired parole officers who supervised them engaged in building a social bonds which resulted in lower crime incidences while under the officers' supervision. I also wanted to find out how EM

has been used "on the ground," and to understand what aspects of EM parole officers working with high-risk found to be effective or ineffective.

For these reasons I used a case study design. In a case study the researcher looks comprehensively at an individual or specific situation (Creswell, 2009a). A case study is the examination of a system that is bounded, or a case that has several cases, over a period of time. This detailed examination involves gathering data from multiple sources of information to view the case in full context. The case study approach is limited by the time and place (Creswell, 2009a). I used this method because a case study provides me the framework for collecting, organizing, and analyzing the data. My aim was to collect complete, efficient, and in-depth knowledge about each participant involved. The intention of any case analysis is to ensure that information for each case is as complete as possible (Patton, 2002). Unstructured interviews and observations are used to understand the experience or behavior of individuals or groups (Creswell, 2009a). The case study approach allowed me to use face-to-face-interviews, which makes it easier for me to ask for clarification for some of the items on the questionnaire and to add strength to what was already known about the use of EM to supervise high-risk offenders by gathering information that could not be obtained with a quantitative approach.

Research Design and Approach

After studying several research designs and approaches (such as qualitative, quantitative, and mixed method), I chose to use the qualitative research method because "it is a means for exploring and understanding the meaning individuals or group ascribed to a social or human problem" (Creswell, 2009b, p. 4). Creswell (2009b) has also noted

that with the "qualitative method, researchers typically collect data in the participant's setting, analyze the data inductively by moving from particular to general themes, and interpret meanings from the data" (p. 4).

The qualitative research method can add details and depth to researchers' comprehension of the use of EM on high-risk offenders. I employed semistructured, indepth, face-to-face interviews with retired parole officers in Harris County, Texas, to collect data about the use of EM for high-risk offenders. I chose to use face-to-face interviews and questionnaires in order to have more control of the interviews and produce more clear and detailed responses from the participants. This interview style also provided me with the opportunity to make sure that all areas of the questions were answered thoroughly and concisely. According to Warren and Karner (2010), face-to-face interviews offer the researcher the opportunity to define and be in control of the situation. The setting for the interviews was in bookstores and libraries.

Restatement of the Research Questions

In this study, I used a qualitative research method to conduct face-to-face interviews in the form of open-ended questions with 10 retired parole officers who supervised offenders on EM in Harris County, Texas. The research questions I used to guide this study are as follows:

- 1. What is the perception of retired parole officers regarding the use of EM to supervise high-risk offenders?
- 2. What are the effects of EM on high-risk offenders during the monitoring period?

The Role of the Researcher

According to Yin (2003), a researcher must have certain skills and these skills are based on the researcher's capacity to (a) ask questions that are appropriate to the topic, (b) be flexible and adaptive, and (c) be knowledgeable about the topic so that there will be no bias during the course of asking for and receiving information about the topic.

Locke, Spirduso, and Silverman (2007) stated that qualitative researchers give meaning to the research through their experience with study participants. This experience opens a new variety of tactical, moral, and privacy issues in terms of research procedures.

Because of this personal tie to the research, researchers must explicitly identify the personal background of the participants such as their socioeconomic status, values, gender, and known biases that may affect the ways researchers interpret the results of their study (Locke et al., 2007).

Over the years researchers have developed professional standards that, although they are not formal codes, further research by helping other researchers avoid pitfalls that come when appropriate research behaviors are breached (National Academy of Science, 2009). The National Academy of Science has stated:

"There are three sets of obligations that encourage researchers to follow their professional standards. First, researchers must respect that their colleagues trust them and avoid irresponsible conduct that sabotages the research goal or goals. Second, researchers follow professional standards with personal integrity. Finally, because of the effect scientific results have on society, on the health and well-being of individuals, researchers are obligated to act in the public interest" (p. 2).

Policymakers are also known to have used research on a number of occasions for issues that will affect an entire community. Thus, I decided to conduct research related to the use of EM to supervise high-risk offenders and build on the previous research on this subject.

I had several advantages in conducting this study. The first advantage was that I had access to documents, reports, and other raw materials that would not be easily available to other researchers because I am employed by the TDCJ as a parole officer who supervises high-risk offenders. This gave me access to the different types of technological equipment used by the agency to supervise offenders on a day-to-day basis. Despite my employment with the agency, I worked to avoid any potential biases during the data collection phase by using techniques such as triangulation of data.

Creswell (2009a) stated that "qualitative research is interpretative, and the researcher's experience with the participant is sustained and intense" (p. 4). As a result, a number of strategic, ethical, and personal issues arise. I explicitly identified my biases, values, and personal background, such as gender, history, culture, and socioeconomic status, which may have affected my interpretations of participants' responses. As a state employee with TDCJ, I realized that the issue of bias conducting such research would be scrutinized. I therefore maintained neutral position when reporting the findings. I also created a procedure for how to receive and record the information collected.

Setting and Sampling

The target population for this study was comprised of 156 retired parole officers who supervised high-risk offenders on EM in Harris County, Texas. I identified a subset

of 30 retired parole officers from this population. This subset included 24 males and six females. The subset of 30 was selected by assigning numbers to 60 retired parole officers from the seven district parole offices in Harris County that agreed to participate in this study. Out of the 60 retired parole officers assigned numbers, I then randomly selected 30. The selection process required that participants must have had at least three years of experience in supervising high-risk offenders on EM in addition to have worked in Harris County. To obtain 10 participants, I made another random selection from the 30 participants. Each of these 10 participants agreed to participate in the study after I contacted them by phone and explained the nature of the study. I also explained to them that I am currently a parole officer in Harris County, that I had changed the plan of my study when the TDCJ Parole Division declined to give me approval to conduct the primary study with current parole officers in Harris County, and that I was thus reaching out to them explicitly because of their retired status.

I conducted in-depth, face-to-face interviews instead of using focus groups or mailed questionnaires. Interviews provided me the opportunity to direct the flow of clear and detailed responses from the participants, and to collect unambiguous information while ensuring that all areas of the research questions were answered. Warren and Karner (2010) have observed that face-to-face interviews offer the researcher the opportunity to define and control the situation in ways that may not have be possible with close-ended or informal interview styles.

The criteria for participanting in for this study were occupation as a former parole officers, their educational background and knowing how to use EM to supervise high

risk offenders. The participants in this study were retired parole officers who have worked with diverse populations and a wide variety of government and community organizations and who accepted the potential hazard of working closely with high-risk offenders. I chose these participants because of my role as a specialized parole officer with the TDCJ, which provided me with a convenience sample. The participants were readily available to me because they resided in Harris County, and I needed no approval from the agency to conduct the research with retired parole officers. I was an instrument in this qualitative research through my interaction and collaboration with the participants.

Determining the sample size in a study is an important step in a research study "A number of issues can affect sample size in qualitative research; however, the guiding principle should be the concept" (Mason, 2010, p. 1). I used convenience sampling to select from 60 retired parole officers who were interested in and agreed to participate in this study, and I excluded the proportion of the population who did not agree to participate in the study. I used convenience sampling in this study because of the participants' accessibility and proximity to me. The convenience sample helped me to gather useful data that would not have been possible using probability sampling techniques. Convenience sampling is a way of selecting the sample by including participants who are already available and that meet the study criteria. A convenience sampling may be used at the beginning of the sampling process if the investigator does not know the characteristics for criteria for sample selection or it is used when the number of participants available is small (Mason, 2010), as was the case in this study.

The following factors contributed to my decision to use convenience sampling and the group size I chose:

- The data were collected through face-to-face interview. The TDCJ open
 record system was not used in this study because the state agency did not
 approve me to use TDCJ open record system. Ten retired parole officers were
 then interviewed for this study after the approval by the committee members
 and URR.
- The cost of collecting the data was low.
- Data collection was expedient and ensured homogeneity to improve the accuracy and the quality of the data collected.

The logic behind selecting 10 retired parole officers was based on Given and Saumur (2008), who defined a "convenience sample as a sample of research participants who are selected based on their readiness, willingness, ability and availability to participate in the study. The selection of 10 retired parole officers allowed me to produce an unbiased sample that would represent the entire population of retired parole officers in Harris County Texas.

In a qualitative study such as this study, using a convenience sample was appropriate. The rationale for limiting the number of participants to 10 was that convenience sampling does not require a large sample to ensure that all the target population was represented. The selection process required that retired parole officers selected for this study have at least 3 years' experience on the use of EM to supervise high-risk offenders. This selection allowed the retired parole officers an equal chance of

being chosen for the sample group and to reduce sampling error. Participation in this study was voluntary and posed no known risk to the participants.

The identity of the participants was protected. I contacted the participants directly and was able to explain to them what the study was about and the benefits and social changes associated with this kind of study. During the first meeting, I explained to them their rights to withdraw from the study at any time during this study and also assured them that information they would provide would be secure. I also explained the informed consent form to them and they signed the form. Informed consent documents were collected prior to beginning the interviews and all interviews took place individually. Interviews were conducted during the first or the second meeting.

Data Collection

Data collection was based on the in-depth face-to-face interviews of 10 retired parole officers who supervised high-risk offenders on EM and the in-depth face-to-face interviews comprised of four major questions with sub questions and the interviews were expected to last about 1 to 2 hours. After this researcher was denied permission by TDCJ parole division to use current parole officers in Harris County, Texas, for this study, I was approved to interview retired parole officers for this study. I then spoke with current parole officers to get referrals of retired parole officers who supervised high-risk offenders on EM, explained to them the purpose of my study, and explained the reason I was interested in using retired parole officers in the study. I was then able to get so many retired parole officers names and numbers who had worked in the seven district parole offices in Harris County. Out of all the retired parole officers contacted, 60 participants

agreed to participate in the study. The participants were contacted by telephone to set up the appointment. Sample of the data collection questions (Appendix A) are:

- How does the use of EM help to prevent high-risk offenders from committing further crimes?
- What does the use of EM to supervise high-risk offenders mean?
- How important is the use of EM to supervise high-risk offenders is to the community?
- How does the use of EM to supervise high- risk offenders help to keep the public safe?
- What are the advantages of using this type of technology to supervise high-risk offenders?
- What are the disadvantages of using this type of technology to supervise highrisk offenders?

Hirschi's (1969) control theory posited that all human beings are naturally capable of committing criminal acts; however, the stronger the "formation of a bond between individual and society, the less likely the individual will be to partake in criminal behavior" (p. 57). This can be linked to interview sub question 3B that relates to high-risk offenders' behavior and the social bond between parole officers and high-risk offenders that can shape offenders behavior. In addition, interview question 4 also addressed retired parole officer's perception of their relationship with high-risk offenders who were on EM. Hirschi explained that the "formation of a bond between individual and

society comprised of four major elements: attachment, commitment, involvement and belief" (Wiatrowski, 1981, p. 1),

I created a procedure for receiving and recording the information that was collected to mitigate the threats to reliability. I created different folders for the 10 retired parole officers that I interviewed and categorized their responses into themes that were stored in different nodes. I also created folders for each interview question and each participant's response.

The inductive coding used in this study was based on organizing data with common patterns or themes, thereby giving structure to conclusions based on the data. In addition to presenting the main categories or themes of the data, I included samples of typical participant responses in each category to make the data more real. This technique allows the reader to go beyond the numbers, to make the research paper more interesting and readable.

Data Analysis

I collected data from 10 retired parole officers in Harris County, Texas, who supervised high-risk offenders on EM by a tool developed by me (Appendix A). Data were collected from interview that allowed me face to face contact with and observation of the participants. I sorted and labeled data according to categories that emerged. The coding strategy was to find words that were commonly used. A tile cloud was then used to identify commonly used words, searching for words or ideas that were repeated in the interview, and these words were then categorized into themes. I came up with a list of about five themes or categories. Next, I re-read each interview response and recorded the

category or categories for each response. Categorizing individual responses was timeconsuming and difficult because some responses did not fit in a category. Nonetheless, organizing data into categories or themes and presenting it in a chart or table made the data easier to understand.

After transcribing the responses from the interviews, I coded the results into themes. I transcribed interview responses into a Word document, and then using NVivo 10 software, an inductive coding strategy was used. NVivo software helped me to organize and analyze the research materials. I also used NVivo software to harness data collected before I coded this information. According to Babbie (2009), open-ended responses must be coded before processing for computer analysis. I then collected indepth information to provide richer data on some of the more elusive aspects of the use of EM and the environment in which it operates. From the folders I created for each of the interviewees, I created a table of survey results of the answers to the questions. I displayed the results in bar charts and tables.

After importing the data I used a tile cloud to find words with similar meaning that participants were commonly used. Data from responses were then organized into themes that were stored in different nodes.

Reliability and Validity

Researchers must be concerned with reliability and validity in qualitative research when designing a study, analyzing results, and judging the quality of the study (Patton, 2002). As a state employee with the agency where the study will take place, I realized that the issue of credibility and trustworthiness of conducting such research would be

scrutinized. Therefore, I ensured fairness and accuracy and also maintained neutral as possible when reporting the findings. I also created a procedure for how to receive and record the information collected to mitigate these threats to reliability. To protect the data collected, I set up a locked cabinet in which I maintained any notes or other documents associated with the study. I maintained all computer files on my password-protected computer.

Presentation of Results

The presentation included a description of methods used in this research. The literature review began with an elaboration of social bond theory in relation to interaction between retired parole officers and high-risk offenders on EM. I then gave a brief review on how high-risk offenders are currently managed in the state of Texas with an emphasis on the role of the parole officers. I reviewed the history of EM of high-risk offenders and discussed the impact of EM on the caseload of the parole officers. I interpreted the data based on my findings.

To deal with the discrepancies cases in this study, I routinely evaluated data collected and to eliminate bias by checking the accuracy of data, making sure it was current and not obsolete, and making sure it fit the purpose for which it was collected. Information centers such as the city business library and local libraries were used to add value to the already existing material at the Walden University library. In addition, as an employee for the agency, I ensured fairness and accuracy and also maintained neutral as possible when reporting the findings.

Ethical Protection of Participants

Any type of studies involving humans should be designed and monitored to protect participants' rights to privacy and their physical well-being. Careful planning and procedures are needed to ensure that the research is conducted ethically. Federman, Hann, and Rodriguez (2002) noted that research participants deserve appreciation for their willingness to participate in a study because some do so at great risk and for little personal benefit.. Thus, research participants deserve to be fully informed about the research, respected, listened to, and protected from harm(Federman et al., 2002). To protect the well-being of the participants in this study, I sought approval for this resarch from the Walden University Institutional Review Board (IRB). I used the process of informed consent, providing each prospective participant with information about the nature of the study, any possible risks and benefits to them, their right to withdraw from the study at any time, and the possible benefits of the study for society. Each participant was required to sign an informed consent document before being interviewed. Participants were also apprised of their rights to withdraw from the study at any time. To protect the identity of the individual participants, each was assigned a pseudonym and was referred to only by that name.

The ethical concern in this study is that the use of EM device of offenders that were protected in this study would be viewed as infringement upon offender's right to privacy and cruel and unusual punishment. Introducing new measure for offenders, especially when it was claimed that it would keep them out of prison was seen as fairly small step. EM of offenders began over 30 years ago and was developed with the notion

that it will solve prison overcrowding. However, in some political and social systems, electronic monitoring of high-risk offenders may pose some ethical concerns because EM expands the ways in which punishment is placed on offenders. There is a concern that the access to EM may lead to the punishment of some offenders in ways that normally would not have been considered punishment. In addition, there is a concern that EM turns a family home environment into a prison environment" (Whitefeild, 1997, p. 79).

The underlying premise of the use of this technology to supervise offenders is that parole or probation officer can control the activities of offenders to prevent them from going back to prison. With restrictions on their movement, some offenders feel that EM violates their privacy while some parole officers believe that the use of EM to supervise offenders gives them more work to do. This is why I maintained the protection of the respondents in this research.

Summary

In this chapter, I presented the methodology of this study, outlined. The plan for using a qualitative case study, and reiterated the research questions. This chapter also included a discussion of the target population, sample size, the processes for data collection and storage, and validity and reliability.

I recognized the importance of combining archival and current data collection tools and instruments to draw relevant inferences as they relate to the study's research questions and the validity of this research. Moreover, I analyzed large volumes of archival data to ensure the reliability and validity of this study because qualitative

research design sometime attracts criticism for being subjective. Chapter 4 will include the analysis of the data and a presentation of the findings.

Chapter 4: Results

Introduction

The purpose of this study was to examine if the use of EM to supervise offenders in the state of Texas has achieved its purpose of keeping the public safe and preventing offenders from committing new crimes. Jail overcrowding and construction costs in Texas that led to the passing of House Bill 2918 (1977) which allowed offenders to be released before completing their prison time and serve their remaining time in society with the use of EM. This bill required that TDCJ establish a "SISP at the highest level of supervision provided by the department to high-risk offenders determined by parole panels to require super-intensive supervision after release on parole or mandatory supervision" (TDCJ, 2010a, p. 1). The Parole Division thus "developed the SISP to furnish a level of supervision and the use of EM to high-risk offenders" in order to meet the bill's mandates (TDCJ, 2010a, p. 1). In my study, I thus intended to discover the sophistication and effectiveness of EM devices in aiding the supervision of high-risk offenders by parole officers.

The following research questions guided this study:

- 1. What is the perception of retired parole officers regarding the use of EM to supervise high-risk offenders?
- 2. What are the effects of EM on high-risk offenders during the monitoring period?

I made a change of plan when Texas Department of Criminal Justice Parole

Division declined to grant me approval to conduct the primary study with current parole

officers at the District Parole Office in Harris County, Texas where this study took place. Therefore, to examine if the use of EM helped in supervising high-risk offenders, I opted to interview 10 retired parole officers with the approval of the committee members, IRB member and URR. I analyzed the answers to the interview questions (Appendix A) with the use of NVivo 10 software, which helped me to collect, organize, and analyze the content of the interviews.

I conducted the interviews at various locations in Harris County, Texas. Six of the participants agreed to meet with me in local libraries close to them, and the other participants agreed to meet at Barnes and Noble Bookstores close to where they live. All the interviews were conducted in the same manner. I began the interview with a brief introduction and explained to the participants the purpose of the interview and their role in the interview. Data were collected through tape recordings and notes from these participants about their perception on the use of EM on high-risk offenders. These participants were retired officers that supervised high-risk offenders on EM in Harris County and are no longer working at various parole officers in the county. The location of the study is significant because Harris County has the greatest numbers of offenders on EM in the state of Texas.

The participants for this study were selected based on demographics that I classified as crucial characteristics. These demographics included participants' former occupation as parole officers, their educational background, and their knowledge of how to use EM to supervise high-risk offenders. 10 retired parole officers agreed to participate in the study. I interviewed these retired officers face to face. I began the interview by

grouping open-ended responses into categories that had conceptually similar meanings. I also recorded Illustrative quotes provided by the respondents for each of the interview questions. My assessment of the effect of EM on offender outcomes was limited to high-risk offenders.

The face-to-face interviews were conducted between July 16th and 30th, 2014. I made direct contact with 10 retired parole officers individually at various locations that were agreed upon by the participants. I collected informed consent forms that were signed by both the participants and me prior to the beginning of the interviews. I provided privacy to complete the interview with no interruption or influence. I assigned each participant a pseudonym during the interview and have used that pseudonym throughout this study. The recording and the transcriptions were done separately, and these were kept in a locked cabinet to which no one had access except me.

I began the data analysis following completion of the interviews, and verified the accuracy of the data by playing back the recording to the participants to make sure that it was accurately recorded. I also read back to them what I had written down to verify that it was accurate and represented their intended meanings. I transcribed interview responses into a word document and then used NVivo 10 software and an inductive coding strategy. I also used NVivo software to assemble data collected before I coded this information. After transcribing the responses from the interviews, I coded the results into four themes. Reliability and validity are important elements that include the collection of data. Validity defines how well a certain method of research claims measurement. Patton (2002) stated that researchers must be concerned with reliability and validity in

qualitative research when designing a study, analyzing results, and judging the quality of the study. As a parole officer employed by the agency, I realized that the issue of credibility and trustworthiness must be scrutinized. Therefore, I ensured fairness and accuracy and also remained as neutral as possible when reporting the findings. I also created a procedure on how to receive and record the information collected to mitigate threats to reliability. To protect the data collected, I set up a locked cabinet in which I kept any notes or other documents associated with the study, and also maintained all computer files on a password-protected computer.

The interviews of the 10 retired parole officers revealed a variety of perceptions regarding the use of EM to supervise high-risk offenders in Harris County. The officers agreed that the primary goals of EM in the state of Texas were to ensure that offenders comply with the terms and special conditions of their parole certificate, track offenders, reduce recidivism, and protect the public. Participants also stated that although EM had achieved the above goals, there are other ways in which this system can be improved to better supervise high-risk offenders. The majority of those interviewed also saw EM of high-risk offenders as one of many tools for parole officers to do their jobs, and not as a replacement for personal contact with offenders. These retired parole officers also stated that the use of EM on high-risk offenders does not mean that offenders would not abscond.

No personal or organizational conditions influenced the participants in this study because all the participants were retired parole officers who had supervised high-risk offenders on EM in Harris County, Texas. The interviews were done at various locations agreed upon by the participants and at times convenient for participants. During this period, I explained to the participants what the study was about, and outlined its benefits and potentials for social change. I also explained to the participants their right to withdraw at any time during the study and assured them that information they provided during the interview would be secure. The participants were under no obligation to answer the interview questions or to provide information on behalf of the agency. The 10 retired parole officers were neutral participants who no longer worked with the TDCJ, and their role in this study as interviewees was to answer questions based on their past experiences as parole officers who supervised high-risk offender on EM.

Description of Population and Sample

Participants were 10 retired parole officers with bachelor's degree who supervised high-risk offenders who had been released from jail on parole in Harris County, Texas, for a number of years. They were responsible for ensuring that offenders complied with the special conditions imposed on them by the Board of Pardons and Paroles. In addition, these 10 retired parole officers also ensured that all EM of high-risk offenders was supervised according to the program's guidelines during any absence of the assigned EM officer. The participants were relevant to this study because they were retired parole officers who had worked directly with an extremely diverse population and a wide variety of government and community organizations, and had accepted the potential hazards of working closely with these high-risk offenders. These participants were the best candidates for this study because they interacted with offenders and assessed if high-risk offenders were genuine in fulfilling the terms of their special conditions during the

time that they were under the officers' supervision. The participants also were able to listen to the offenders, their employers, and others involved in their lives to find out if they complied with terms of their special conditions. Therefore, the relevant characteristics of these participants can be summed up as good communicators, relationship orientation people, motivators, and critical thinkers.

Parole officers who supervise high-risk offenders must be assigned by the regional director and trained to follow the guidelines of the caseload to supervise offenders on EM. The retired parole officers who participated in this study had various perceptions about the use of EM to supervise high-risk offenders based on their answers to the interviews questions.

Data Collection

Data were collected from interviews of 10 retired parole officers who had worked with the Texas Department Criminal Justice in Harris County, Texas, at various locations (i.e., Barnes and Noble bookstores in Houston, Texas, and the Houston Public Library). These data were collected during working days and on Saturdays for a period of 3 weeks which was between July 16th and July 30th, 2014. The data collection to this qualitative study was in the form of interviews (Appendix A).

Responses to these questions were interpreted with NVivo software, which is designed to assist researchers in data collection and uncoordinated ideas. I also transcribed recorded interviews and reviewed field notes as soon as practical after each session. Babbie (2009) stated that the "open-ended responses must be coded before they can be processed for computer analysis because the coding process often requires the

researcher to interpret the meaning of responses, opening the possibility of misunderstanding and researcher bias" (p.147). To protect the data collected, I maintained any notes or other documents associated with the study in a locked cabinet. I also maintained all computer files on my password-protected computer. After a period of 5 years, I will destroy all raw data.

The interviews enabled me to gather more relevant information on high-risk offenders on EM who had been supervised by these retired parole officers. Therefore, accurate data collection was important to maintain the integrity of the research. The selection of participants of any research study is also important for accurate data collection. The selection of the participants in this study was useful because the reseracher was able to gather in-depth information about the perceptions of retired parole officers on the effectiveness of EM based on the social bonds developed between the officers and high-risk offenders who were on EM during the time the officers supervised them. All information gathered from the participants was recorded and written during the time of the interview. The information was fully secured in a cabinet in my home with no access to anyone. The participants signed the consent form prior to the beginning of the interview. This information was typed and stored in my personal computer that was securely protected with a password known only to me. All participants in this study were fully protected because it was important to me and the participants during the time I obtained all the information.

The first unusual circumstance I encountered in the process of gathering data for this study was the bureaucracy within the agency that I went through. The original plan for this study was to interview current parole officers at the Houston 7 District Parole Office in Harris County. My rationale was that using current parole officers would result in correct and concise answers to the interview questions. However, I made a change in the sample after I was denied the opportunity to interview current parole officers when my application to conduct research form was referred to several department heads within the agency and denied.

In addition, after filling out a data request form for the use of secondary data and sending it to the appropriate department, the request was again sent to the open record department and I was told that it was going to take about 61 working days to get information. This contributed to the delays I had since the beginning of this dissertation. Finally, the secondary data that were provided were never used for this study because the data did not yield the results I had hoped for. Therefore, the reseracher interviewed 10 retired parole officers after I obtained permission from the chairman, co-chairman and IRB approval to maintain the qualitative method of study. "Recording and organizing data may take different forms, depending on the kind of information the researcher collects. How a researcher collects data should be related to how the researcher plans to analyze and use it. Recording should be done concurrent with data collection, if possible, or soon afterwards so that nothing gets lost and memory does not fade" (Rabinowitz & Fawcett, 2011, chapter 37, para. 3).

Findings of the Interviews

The responses of the 10 retired parole officers interviewed for this study are distinguished with the designation PO1 through PO10. The emergence of several themes

from the first coding process was based on the responses from the 10 participants that stated that despite the fact that EM had achieved the goals of public safety in the state of Texas, there are other ways in which this system can be improved upon for better supervision of high-risk offenders. The majority of the participants also saw the use of EM to supervise high-risk offenders as a tool that helps parole officers to do their jobs but not as a replacement for personal contact with high-risk offenders. The findings are reported question by question and summary responses of each participant are provided.

Research Question 1

Research question 1 asked: How does the use of EM help to prevent high-risk offenders from committing further crimes? Subquestions were (a) What does the use of EM to supervise high-risk offenders mean? (b) How important is the use of EM to supervise high-risk offenders is to the community?

PO1 response:

Use of electronic monitoring helps to keep offenders from committing further crimes because it restrains their movement. The use of EM to supervise high-risk offenders is to make sure that an offender is in a specified location during specified time. [EM] is important in order to track the locations of the offenders that are being paroled to the community and this does help to make the community safe.

P01 response summary: My first participant was notified by telephone about the study, I explained to him during the conversation that I would like to meet with him and the reason. He accepted to participate after my conversation with him and we then arranged for a date, time and place. We had the interview on July 16, 2014 in a public

library located in Houston Texas. Before the interview, I explained to him that the purpose of the interview is for my dissertation. I explained to him again that I was here to get his perceptions about the use of EM to supervise high-risk offenders because of his experience in the use of EM to supervise high-risk offenders before he retired with the Texas Department of Criminal Justice in Harris County. The consent form was then given to him to read and sign before the interview began. Stated below are questions and the responses from the participants.

PO2. PO2 responded:

Because they are being watched by having this type of monitor and it will be difficult for these offenders to commit another crime and they have been told that any violation while they are on this monitor will result in sending them back to jail.

This means that these high-risk offenders are allowed to productively rehabilitate in the community while they are on this type of monitor.

The community feels safe when the offenders on this type of monitor are in their midst because they are aware that they are being watched by the parole division.

PO3. PO3 responded:

High-risk offenders that are on this type of monitor will not think about committing further crimes because it is always in their mind that a supervising officer is always watching them with their monitor.

It is a way of watching those dangerous offenders that have been released from jail into the community by the Texas Board of Pardon and Parole so that they

can live freely within the community in Harris County.

The use of this type of technology to supervise high-risk offenders in most cases cost less and is beneficial to the criminal justice department to operate overcrowded institutions and in this way they will not build more jails.

PO4. PO4 responded:

I believe that the use of EM does help to prevent offenders from committing further crimes because by putting such a device on is enough to put fear in their mind and they dare not think of doing another crime. I noticed fear in their eyes in most offenders that I supervise when reporting to me during that time that I supervised them and also when I did a home visit on them.

This means a lot and using EM does allow offender to live in a free world than living behind bars. It means that having a monitor on will help offenders to go to work and be back, go to school and above all leave with the family that he has long missed during incarceration.

Again, using this type of monitor has tremendous benefit to the community in the sense that they can work as I have said before and do something good to themselves while they are not in jail. Also, these offenders feel a sense of belonging to the society because they are no longer in jail.

PO5 PO5 responded:

The use of EM has acted to prevent offenders from committing further crimes because they are being monitored 24/7 and a warrant can been issued on them by

the parole division or by the command center if it determined that they violate the conditions of their release.

It is a technological tool to monitor offenders on parole or probation and I was lucky to be one of the parole officers who were using it to supervise these offenders.

The community feels release knowing that the offenders living in their community have been placed on monitors and committing any form of crime will be known immediately.

PO6. PO6 responded:

I believe that since offenders know that they're on this type of monitor, they tend not to commit other crimes. This is due to the fact that EM help to enforce an order which required these high-risk offenders to stay at home based on the conditions of their release.

EM to supervise high-risk offenders is a device used to restrict the movement of offenders while on parole.

It is very important to the community relation relationship with the offender because the community is aware that the offenders are being supervised very well by Texas Department of Criminal Justice and this is the reason why majority of the people in this community are not against the release of these offenders to live in their community.

PO7. PO7 responded:

It is helping to prevent offenders from committing further crimes by monitoring every aspect of their movements within the community.

It means to monitor the movement of these offenders until they are no longer on parole.

By using this type of monitor, the community does feel safe based on my experience as parole officer.

PO8. PO8 responded:

It helps in the sense that that their movements are being monitored by a parole officer.

It is used by Texas Department of Criminal Justice to enforce the conditions of their release while on supervision after they have been released from jail to serve the remainder of their time on parole.

With the use of EM in the community, offenders' movements can be traced in the community.

PO9. PO9 responded:

Using EM on high-risk offenders can is aimed at controlling their movement that will help to prevent them from committing further crime.

It is a tool that helps parole officers which I was part of to more intensely supervise these offenders.

Using this type of device to supervise high-risk offenders helps to keep the community safe.

PO10. PO10 responded:

It does help to prevent offenders from committing crimes because it allows offenders to comply with all the rules and regulation governing the use of electronic monitor in which they are subjected to and any deviation will result in violation.

It is a way of reducing the prison population by reducing the use of custody without increasing risk to the community.

It is important to the community because it helps to keep the community safe.

Research Question 2

Research question 2 asked: How does the use of EM to supervise high-risk offenders help to keep the public safe? Subquestions were (a) What are the advantages of using this type of technology to supervise high-risk offenders? (b) What are the disadvantages of using this type of technology to supervise high-risk offenders?

PO1. PO1 responded:

The use of EM does make the public safe in the sense that it can provide realtime monitoring of offenders, ease prison overcrowding, and increase public safety. The use of EM had also greatly increased community safety.

The advantages of using this type of technology to supervise high-risk offenders is that an offender will not think about committing another crime while on EM.

The disadvantage of using EM to supervise high-risk offenders is that it creates false alerts and also heavy work load for a parole officer

PO2. PO2 responded:

It helps parole officers with additional tools to more intensively supervise these high-risk offenders and I was able to utilize this system very well while I was in the system.

One of the advantages of using this type of monitor is that it helps to reduce criminal activities within the community.

It can create too much burden on the offender and the family for the fact that high-risk offenders' movements are restricted in the home where they live.

PO3. PO3 responded:

Using EM to supervise high-risk offenders help to keep the public safe because it keeps high-risk offenders off the street while using this type of tool to supervise them. We are not going to have so many criminals on the street if we have to place some of them on EM that will make us to keep an eye on them.

It does help to ease jail overcrowding within the Texas Department of Criminal Justice institution. The Texas Department of Criminal Justice is known to have jail overcrowding in the nation and using EM on high-risk offenders does help in jail overcrowding.

The disadvantage is that it does not prevent an offender of committing further crime despite the fact that he is on EM. What I meant is that an offender can have this monitor on and still commit crime. There were instances in my caseload whereby certain offenders cut off their monitor before they committed other crime.

PO4. PO4 responded:

Both adults and children feel very safe in the community because these offenders cannot enter into any area in the community especially the most dangerous ones, like sex offenders that cannot enter park and play ground where children gather. This makes parents of these children living in Harris County feel release when their children are in public places to play.

It does help to ease jail overcrowding within the Texas Department of Criminal Justice institution. It makes the department release more offenders away from the jail into the community.

The advantage is that it does meet the public demand for punishment. In other words, it balances the offender's right to liberty with the public's right to safety and considers the cost to society of various responses to antisocial conduct. These offenders as I will point out here still have to pay for their crimes because majority of them have committed the worst crimes against humanity

PO5. PO5 responded:

In my opinion, I believe that it [EM] helpd to keep the public safe, it prevents offender from committing other crimes while they are living in the community.

I believe that being placed on this type of monitor instead of still living in jail help the offender to maintain family ties and occupational roles and this can contribute to the overall rehabilitation of the offenders.

In my opinion, I believe that the use of this technology does not solve the overcrowding jail problem but it can be used in conjunction with other

alternatives to incarceration for better result in the supervision of these offenders.

We still do have jail overcrowding in Harris County and it has been mentioned on several occasions in Texas to build more jails.

PO6. PO6 responded:

I believe that it helps to keep the public safe due to the fact that offenders are monitored and in most cases they are on lockdown when they are not working, searching for job or have any type of appointment to go like medical appointment.

One of the advantages of using EM to supervise high-risk offenders is that it creates an effective alternative to imprisonment.

I believe that it costs too much to supervise these offenders with EM rather than leaving them behind bar. To me, the state of Texas is still spending a huge amount of money on them in Harris County despite the fact that they are not in jail.

PO7. PO7 responded:

It does provide greater surveillance of offenders under monitor.

It helps to reduce jail and prison overcrowding in the state of Texas whereby no new jails will be constructed.

It does put too much burden on the family where the offenders live. The family activity is disrupted while offender who is on monitor lives in the house because there are restrictions to the offender's movement within the house.

PO8. PO8 responded:

They cannot commit further crime knowing very well that they are being watched.

It helps to provide greater surveillance of offenders under surveillance.

Offenders under this type of surveillance can still offend before they are caught because the use of EM does not restrain offenders from committing a crime.

PO9. PO9 responded:

As I have stated above, using this EM to supervise offenders does help to keep the public safe because they in watchful eye of parole division.

The use of electronic monitor can contribute to savings with the department of criminal justice.

It looks as the offenders and their family are being placed in this kind of monitor. Based on my experience, it creates additional burden on the family. **PO10.** PO10 responded:

Offenders who are on this type of monitor do not normally re-offend because they are not like regular offenders who are not on electronic monitor.

These types of offenders cannot leave their home without giving a schedule by their parole officers to go out for either a job search or for medical appointment.

Some offenders believe that it is an addition punishment on their part because they have pay for their crime while in jail and that the use of electronic monitor does restrict their liberty.

Research Question 3

Research question 3 asked: How does EM affect offender's criminal behavior during the monitored period? Subquestions were (a) How can EM of high-risk offenders

act as a force to reduce recidivism? (b) What role does EM play to shape offenders behavior?

PO1. PO1 responded:

I am not very sure here how the use of EM on high-risk offenders affects criminal behavior.

It helps to reduce recidivism among high-risk offenders because it reduces their chances of going to jail.

EM plays an important role in the offender's behavior because it helps offenders to get a job, be with their family and also help to adjust to the society.

PO2. PO2 responded:

It does affect offenders criminal behavior because most offenders that I supervised told me that they were always nervous especially when the alert goes false in the sense that they will be thinking that a warrant has been issued on them for violating.

It does act as force to reduce recidivism because offender will not think of committing more crimes.

EM has helped a lot to shape offenders behavior in the sense that they tend to act right when they are on EM after they have been released from jail.

PO3. PO3 responded:

I cannot state here clearly how it affects their behavior during their monitored period.

This has helped a whole lot to stop recidivism compared to other offenders who are not on EM. That is, offenders on this type of supervision do not go back to jail so often and the ones not on any type of EM do go back to jail very often.

EM has helped a lot to shape offenders behavior in the sense that they tend to act right when they are on EM after they have been released from jail. The fact that they have spent so many years in jail and they are now released to live free in society within the community in Harris County is an opportunity for them to behave like any other human being.

PO4. PO4 responded:

Offenders on EM are always very fearful and this tends to change their criminal behavior. The belief of most of them is that someone is always watching them even when they are in the comfort of their living room.

Many offenders wearing EM do not go to jail so often as far as I can remember based on all the years that I supervised these offenders. In other words, I supervised the different caseloads before I became an EM parole officer and offenders on other caseload were always going back to jail constantly.

(This question was not answered.)

PO5. PO5 responded:

It makes the offender a better citizen within the society.

These offenders do not go back so often to jail assuming that they were not on EM.

It plays a lot to shape offenders behavior because I saw a lot of offenders who were changed while on this type of monitor till the time that they were discharged from parole.

PO6. PO6 responded:

(This question was not answered by this participant).

It can act as force to reduce recidivism if these offenders are on monitor for a long period of time rather than 60 days that some of them has to be on before they are taken away from the monitor by the Board of Pardon and Parole.

(This question was not answered by this participant).

PO7. PO7 responded:

(This question was not answered by this participant).

This has helped to reduce recidivism because it helps to enforce compliance with curfew.

Because being in this type of monitor can make offenders to get a job attend any of his medical appointments. That is, it helps the offender to maintain stable employment.

PO8. PO8 responded:

Being on EM does not mean that these offenders will change their criminal behavior.

Because most of these offenders do stay away from trouble while on electronic monitor.

It helps them to get to know their family again they have left while they were incarcerated.

PO9. PO9 responded:

(This question was not answered by the participant).

These high-risk offenders are not picking up new charges compared to offenders not on electronic monitor base on my experience with the agency.

(This question was not answered by the participant).

PO10. PO10 responded:

In my opinion, it is a way of keeping offenders out of jail and out of trouble and acts as a stabilizing influence in their lives.

It can act as a deterrent to recidivism because offenders are always on this monitor.

(This question was not answered by the participant).

Research Question 4

Research question 4 asked: What is your perception about the use of EM to supervise high-risk offenders? The subquestion was: How effective is the use of EM to supervise high-risk offenders in Houston, Harris County?

PO1. PO1 responded:

I believe that high- risk offender's relationships with others significantly changed because they are being monitored 24 hours a day and these high-risk offenders felt a sense of shame and stigma about being under EM.

It is an effective tool in supervising high-risk offenders in Harris County because it has helped to cut down crime in this community.

PO2. PO2 responded:

I believe that it is a good supervising tool to supervise high-risk offenders because I was able to sit in the front of my computer and monitor an offender's movement all day within the Harris County community.

Using this type of technology to supervise high-risk offenders has help to reduce crime within the community.

PO3. PO3 responded:

EM is a supervision tool that I believe that the Texas Department of Criminal Justice do not have to do away with based on how it is helping parole officers in the supervision of offenders.

My assumption here is that the fact that there is decrease in crime in Harris County tells me that by putting some offenders on EM is helping to keep the public safe in Harris County.

PO4. PO4 responded:

I think that it is a good tool to supervise these kinds of offenders. It made my caseload easier while I supervised these kinds of offenders. That is, I was able to supervise these offenders by using a computer to monitor their movement.

It is very effective when it comes to using it on them based on the fact as I have pointed before that was able to supervise them by using a computer to monitor their movement.

PO5. PO5 responded:

In the first place, I love the technology but we had a lot to do like clearing alerts for each offender in every day and the notification that you receive in every minute that you have to response to. This notification of alert will get to the assistant regional director if the alert is not addressed within 30 minutes.

Well, I believe that it is good, it helps to get the job of supervising offenders done.

PO6. PO6 responded:

I like the idea of using EM to supervise offenders while I was working with this agency.

It is very effective based in my years of using it to supervise high-risk offenders.

PO7. PO7 responded:

Introducing the use of this technology in the state of Texas to supervise offenders has helped in no small measure in the criminal justice system.

Very effective tool to supervise offenders because their movement is always known.

PO8. PO8 responded:

Using electronic monitoring to supervise high-risk offenders taught me so many things like the use of a single technology can change a human being in terms of compliance.

It is working wonders when it comes to using it to supervise offenders in Harris.

PO9. PO9 responded:

My perception about the whole idea of using EM on offenders is that it makes them settle down with their family, get a job and to stop re-offending.

It has proved to be a very good tool for supervising offenders.

PO10. PO10 responded:

It is a product which in most cases simultaneously reduced the prison population and re-offending rates by these high-risk offenders. In addition, it is a way of being tough on crime by letting these offenders know that they still have to pay for their crime even when they are out from jail and also to shape their criminal behavior.

It is very effective because it is a useful tool to supervise high-risk offenders despite the fact that equipment malfunction do occur that result to technical violation.

Results

There was no discrepancy data or nonconforming data that were analyzed; however, individual participants had different perceptions and views because the interviews were conducted with open-ended questions.

Data Analysis

I used an inductive coding strategy to analyze the data collected from the interview of 10 retired parole officers. Interview responses were transcribed into a Word document, and then usinging NVivo 10 software, an inductive coding strategy was used. The coding strategy was to find words that were commonly used and a tile cloud was then used to identify commonly used words or ideas that were repeated in the interview

and these words were then categorized into themes. I categorized responses into themes that were stored in different nodes and a list of about five themes or categories emerged. I then organized data into categories or themes, and presented these themes it in charts or tables for easier understanding. Table 1 shows the commonly used words by the 10 retired parole officers and the number of occurrences.

Table 1

Common Words and Number of Occurrences

Words	Number of occurrences
High-risk offenders	13
Parole officer	6
Type of technology	4
Incarceration	3
Electronic monitoring	11
Criminal Justice Department	5
Criminal behavior	7
Reduces recidivism	5
Public safety	7
Jail overcrowded	4
Relationship	6
Perception	3

The responses of the 10 retired parole officers interviewed were then broken down into four themes to narrow down the data to address the research questions. For example, participant comments such as "use of electronic monitoring" were categorized into themes, sources and the number of references. Nodes were created for each theme. Each theme in Table 2 shows the number of participant with the comment (Sources) and the references indicated the number of times the comment was used at each node.

Table 2

Emergent Themes Derived From Interviews

Nodes	Themes	Sources	References
Node 1	Use of EM to create social bond	10	87
Node 2	EM prevents offenders from committing further crimes	10	49
Node 3	EM help keep the community safe	7	31
Node 4	EM prevents jail overcrowing	5	18

Participants' responses to each theme were collected based on the number of references in each interview question. Participants were assigned pseudonyms PO1 to PO10. Table 3 shows the result of participants' responses to each theme.

Table 3

Participants' Responses to Themes

Respondents PO1-PO10	Use of EM creates social bond	EM prevents offenders from commit further crime	EM helps keep the community safe	EM prevents jail overcrowding
PO1	A good device	Helps to keep offenders from committing further crimes	Reduces jail overcrowded	Greatly increased community safety
PO2	High-risk offenders are allowed to productively rehabilitate in the community while they are on this type of monitor	Difficult for these offenders to commit another crime	Reduces recidivism	The community feels safe
PO3	Offenders released by the Texas Board of Pardon and Parole can live freely within the community in Harris County.	An offender can have this monitor on and still commit crime	In most cases cost less and is beneficial to the criminal justice department to operate overcrowded institutions	Is helping to keep the public safe in Harris County.
PO4	EM allow offender to live in a free world than living behind bars. EM help offenders to go to work, go to school and above all leave with the family	Help to prevent offenders from committing further crimes	Help to ease jail overcrowding	Has tremendous benefit to the community
PO5	Offenders feel a sense of belonging to the society because they are no longer in jail.	Help to prevent offenders from committing further crimes	Does not solve the overcrowding jail problem	The community feels release knowing that the offenders living in their community have been placed on monitors

(table continues)

PO6	The community relationship with the offender because the community is aware that the offenders are being supervised	They tend not to commit other crimes.	It helps to reduce jail and prison overcrowding in the state of Texas	The community is aware that the offenders are being supervised very well
PO7	It does put too much burden on the family where the offenders live	This has helped to reduce recidivism	Reduce institution population	The community does feel safe
PO8	Based on my experience, it creates additional burden on the family.	Offenders will change their criminal behavior.	It is working wonders when it comes to using it to supervise offenders in Harris County	Movements can be traced in the community.
PO9	It help offender to maintain family ties and occupational roles	It is a tool that helps parole officers	Help Harris county	Helps to keep the community safe.
PO10	It allows offenders to comply with all the rules and regulations	Help to prevent offenders from committing crimes	It is a way of reducing the prison population	It helps to keep the community safe.

To have a conclusive finding the number of participants that supported the use of EM to supervise high-risk offenders in Harris County were then categorized with percentages. Table 4 and Figure 1 illustrate the results of the participants' responses that supported the use of EM to supervise high-risk offenders.

Table 4

Participants' Responses Supporting Use of EM to Supervise High-Risk Offenders

Themes	Response that support the use of EM	References	Percentage for the use of EM
Use of EM creates social bond	8	10	80%
EM prevents offenders from committing further crimes	8	10	80%
EM prevents jail overcrowding	9	10	90%
EM helps keep the community safe	10	10	100%

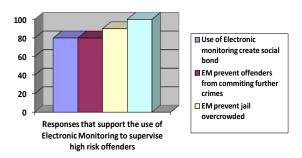


Figure 1. Responses supporting the use of EM to supervise high-risk offenders.

To have a conclusive finding the number of participants that are against the use of EM to supervise high-risk offenders in Harris County were then categorized with percentages. Table 5 and Figure 2 illustrate the results of the participants' responses against the use of EM to supervise high-risk offenders.

Table 5

Participants' Responses Against the Use of EM to Supervise High-Risk Offenders

Themes	Response against the use of EM	References	Percentage for the use of EM
Use of EM creates social bond	2	10	20%
EM prevents offenders from committing further crimes	2	10	20%
EM prevents jail overcrowding	1	10	10%
EM helps keep the community safe	0	10	0%

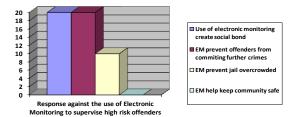


Figure 2. Responses against the use of EM to supervise high-risk offenders.

Evidence of Trustworthiness

Adjustment to the credibility strategies stated in Chapter 3 of this study was made because credibility in qualitative research means the study results are believable and trustworthy from participants' perspectives. In this study I also described or explained the event, a phenomenon from the perspective of participants because the participants were best situated based on their experience of supervising high-risk offenders. With this in mind, I obtained results of the responses of the 10 retired parole officers because they are in a better position to judge the credibility of the results. Therefore, the results of this study showed that bias was minimized in the data collected.

I asked each of the participants to listen to the recording of their respective interviews to verify transferability. I also took notes in a journal while the interviews were being recorded. The audio and the written notes were coded according to the participant's ID (e.g., PO1 through PO10). Through the exploration of a different number

of sources coded into various themes, five themes emerged with unbiased analysis from me.

Dependability, an important factors for determining the trustworthiness of a qualitative study, relates to how the researcher's responds to changes in the setting of the study and the effect of these changes on the study's credibility. My original plan was to interview current parole officers at the Houston 7 District Parole Office in Harris County, Texas. However, the director of the TDCJ Parole Division did not grant me permission to interview present parole officers. Therefore, I requested to interview retired parole officers, which was approved by the committee members and URR. The outcome of the result based on the analysis of this study that was done through open- ended interviews showed that the goals of EM on the high-risk offender to reduce jail overcrowding, reduce recidivism rate, protect the public were achieved in Harris County.

Researchers must be concerned with the consistency of their research results with the results of others researchers. Because I am a state employee with the TDCJ, interviews with retired parole officers brought a unique perspective to the use of EM to supervise high-risk offenders. Therefore, I ensured that some strategies were put into practice throughout the analysis and reporting of the findings of the result to enhance confirmability. I also created a procedure for receiving and recording the information collected to mitigate threats to dependability. To protect the consistency of the data that were collected, I documented the procedures for checking and rechecking the data and conducted a data audit of data collection and analysis procedures and made judgments about the potential for bias or distortion. The (National Institute of Justice, 2011, p. 1).

corroborated my findings that indicated that about one-third of the high-risk "offenders would have served time in prison if the electronic surveillance alternative" had not been available.

Summary

The retired parole officers who participated in this study stated that the use of EM on high-risk offenders helps to keep high-risk offenders from committing further crime because of the social bond that existed between them and the offenders. (Wallin & Klarich, 2014, p. 2) stated that the "technology is advanced and allows the agency to create specific inclusion and exclusion zones, mapping, and tracking". Some of the participants stated that the use of EM alone was not enough to reduce crime in Harris County, but crime reduction was enhanced through the relationship between the officers and offenders. EM is a useful way of disrupting patterned criminal behavior such as night-time burglaries, shoplifting, and late-night public order offenses and is also effective for long-term monitoring of offenders who continue to present a public safety risk.

The majority of the participants agreed that the use of EM contributes to public safety because it can provide real-time monitoring of offenders and ease prison overcrowding. The findings indicated that high-risk offenders in Harris County were closely monitored after release from jail and placed on an electronic monitor in the community. Participants further pointed out that the use of EM to supervise high-risk offenders had helped them in no small measure while these offenders were under their supervision based on the fact that it they were able to get jobs while on the monitor and to

be with their families. The disadvantages of the use of EM, according to some of the participants, are that some offenders believed that this type of technology is an additional punishment.

Most of the participants were not clear on their answers to the question, how does EM affect offender's criminal behavior during the monitored period? Some, however, stated that the use of EM had a significant effect on the high-risk offender's behavior during the monitored period. They stated that the use of EM frustrated high-risk offenders because offenders' normal activities were restricted. Some of the participants responded that the use of EM on high-risk offenders did affect criminal behavior and some parolees felt labeled and stigmatized. The use of EM actually reduces the likelihood of recidivism of high-risk offenders compared to those not on EM. Some participants' responses were that it is not clear whether some of behavior in the EM offenders occurred as a result of the use of EM.

In response to the question, what is your perception about the use of EM to supervise high-risk offenders? some participants stated that EM is a tool that helped them to supervise high-risk offenders effectively and is reliable equipment that is difficult for high-risk offenders to manipulate. Other participants stated that the problems of EM sometimes arose with the equipment malfunction because of incorrect equipment installment or signal interruption. They also stated that the problems with the equipment sometimes frustrated the high-risk offenders and increased noncompliance. Overall, however, participants believed that in the long run EM was a good tool that more effectively aided their supervision of high-risk offenders.

Conclusion

This study aimed to examining the use of EM to supervise high-risk offenders in the state of Texas. The participants were 10 retired parole officers who supervised highrisk offenders in Harris County and worked closely with high-risk offenders for a number of years. The results of this study found that the use of EM on high-risk offenders strengthened what most people in Harris County considered to be a sensible, long-term approach to manage offender behavior without posing further risk to the community. The data were analyzed using NVivo 10 software. The results showed that the use of EM of high-risk offenders in Harris County was of major significance to the TDCJ. The use of EM helped parole officers to gain more knowledge of EM to supervise high-risk offenders and its impact on preventing reoffending. EM was a good tool that allowed the TDCJ to adapt its supervision strategies and improve parole practices. The results of this study also found that public safety is a principal concern to criminal justice agencies across the nation. The use of EM by the TDCJ to supervise high-risk offenders had had a significant impact in Harris County. As Bales et al. (2010) pointed out, "with over 5.1 million offenders under some form of community supervision in the United States and the average annual growth rate at 1.4 %, there is an urgent need for evidence-based monitoring strategies. Potential for the growth in the use of EM is great" (p. 13). For this reason, the TDCJ chose to use this type of supervision strategy to help parole officers supervise high-risk offenders. The results of this study found that the goal of the program had been achieved.

Chapter 4 presented the data analysis of the study and discusses the results of the study and a brief summary of data collection. Chapter 5 will include the interpretation of the result of the study, the conclusion of the research and recommendation for future research. Chapter 5 will also discuss social significance of this study and the future of EM to supervise offenders in the criminal justice system within the state of Texas.

Chapter 5: Discussion, Conclusion, and Recommendations

Introduction

In this study, I examined the use of EM to supervise high-risk offenders as an effective means of keeping the public safer by preventing offenders from committing additional crimes while on parole. The dissertation was specifically focused on the relative effectiveness of EM systems and the ethical issues surrounding their use in the criminal justice system in the state of Texas. The results showed that EM devices can aid in the supervision of high-risk offenders, that the technology is improving, and that the use of the technology assists in preventing high-risk offenders from violating the conditions of their parole. The social bond between parole officers and offenders also help to prevent offenders' from committing new crimes.

This study of the use of EM in Harris County, Texas shows that the use of EM was able to provide information on high-risk offenders' whereabouts at all times. It offers almost instantaneous information that high-risk offenders have broken their curfew and provides concrete evidence of the violation. This information can be used during parole revocation hearing by parole officers to try and elicit greater compliance in the future if the high-risk offenders are returned to supervision by the Texas Department Board of Pardon and Parole. In addition, I found that the retired parole officers who I interviewed had a shared sense of objective in that they believed that high-risk offenders should be electronically monitored.

I found that the use of EM to supervise high-risk offenders in Harris County,

Texas, reduced the likelihood that an individual on parole would reoffend because the use

of EM facilitated the formation of a stronger social bond between high-risk offenders and their parole officers. If high-risk offenders are deterred from committing high-risk behaviors, it may no longer be necessary to incarcerate them to protect the Harris County community. With EM, high-risk offenders may be safely released on parole, thus increasing their freedom and reducing the risk to the community. These findings are based on data I collected from face-to-face interviews with 10 retired parole officers. The interview data were used to answer the following research questions:

- 1. What is the perception of retired parole officers regarding the use of EM to supervise high-risk offenders?
- 2. What are the effects of EM on high-risk offenders during the monitoring period?

The interviews revealed a variety of perceptions about the effectiveness of EM. Respondents agreed that the primary goal of the criminal justice system in Texas is to provide a level of supervision and monitoring of offenders to best insure public safety. They also stated that although EM had achieved the above goals, the system can be improved for better supervision of high-risk offenders. The majority of participants agreed that the relationship between parole officers and high-risk offenders on EM resulted in high-risk offenders' attachment to parole officers and thereby positioned the officers as agents of formal and informal social control. The majority also saw EM as only on of many tools to help parole officers to do their jobs, and not as a replacement for personal contact with offenders. Participants also stated that the use of EM on high-risk

offenders does not prevent them from reoffending or leaving the area, but it assisted in enforcing compliance with curfews and home confinement.

Interpretation of the Findings

The aim of this study was to examine whether the use of EM to supervise highrisk offenders in the state of Texas has achieved its purpose of keeping the public safe and preventing offenders from committing new crimes. The participants were 10 retired parole officers who supervised high-risk offenders in Harris County, Texas. Based on my analysis, the results of this study showed that the use of EM on high-risk offenders strengthened the social bond between high-risk offenders and other members of their community. I also found that the use of EM on high-risk offenders also strengthened what most people in Harris County considered to be a sensible, long-term approach to managing offender behavior without posing further risk to the community; that is, 100% of the participants agreed that the use of EM of high-risk offenders helps to keep the community safe. The results also showed that 80% of the participants indicated that the use of EM of high-risk offenders in Harris County deterred high-risk offenders from committing further crime, and 80% also agreed that the use of EM can create social bonds between high-risk offenders and parole officers. This study also show that the use of EM helped parole officers to gain more knowledge of EM which in turn better helped them supervise high-risk offenders and prevent reoffending (80% of participants agreed that use of EM prevents offenders for committing further crime). Ninety percent of the participants agreed that the use of EM on high-risk offenders helps to prevent jail overcrowding in Harris County, and is thus of major significance to the TDCJ.

Participants also agreed that EM was a good tool that allowed the TDCJ to adapt its supervision strategies and improve parole practices. The results of this study also showed that public safety is a principal concern to criminal justice agencies across the nation. In aggregate, the results of this study show that the goal of the EM program had been achieved. Thus, in this study, several themes emerged: (a) use of EM creates social bonds, (b) EM prevents offenders from committing further crimes, (c) EM helps keep the community safe, and (d) EM prevents jail overcrowding.

Despite efficacy of EM for achieving the goals of public safety in Texas, there are other ways in which this system can be improved upon to better supervise high-risk offenders. The majority of the participants saw the use of EM to supervise high-risk offenders as a tool that helps parole officers to do their jobs, but not as a replacement for personal contact with high-risk offenders. Hirschi (1969) explained that the "formation of a bond between individual and society comprised of four major elements: attachment, commitment, involvement and belief" (Wiatrowski, 1981, p.525) and the stronger each of these four elements are, the less likely for an individual will take part in delinquent behavior.

Most of the participants stated that the use of EM on high-risk offenders helps to prevent offenders from committing further crimes because offenders know that their parole officers are potentially aware of their whereabouts at any given moment. Hirschi's theory related to the findings because Hirschi blieved that crime occurs when social bonds are weakened or are not well established. High risk offenders are committed to conform to the rules because of the level of attachment between parole officers and

offenders on EM and thus help to reduce recidividism. The technology of EM devices today is so cutting-edge that an agency can create specific inclusion and exclusion zones and mapping/tracking so that the whereabouts of those wearing the devices are always known. Some of the retired parole officers who participated in this study stated that the use of EM devices on high-risk offenders was successful in Harris County because of the social bond that existed between them and the offenders. The relationship between these officers and high-risk offenders that supervised them resulted in the offenders' attachment to their parole officers, which in turn resulted in parole officers' positioning as agents of formal and informal social control. Read in the context of Hirschi's (1969) social bond theory, EM can act as an external control system because the use of EM results in offenders committing less crime. EM is a useful way of deterred consistence criminal behavior such as late-night public order offenses, nighttime burglaries, and shoplifting, and it also allows for continuous monitoring of offenders who present a public safety risk.

The results of this study are consistent with other research which has shown that EM of persons at high risk of becoming repeat offenders altered the way in which risk is conceptualized and assessed (Rollwagen & Brunschot, 2012). The results were also similar to research conducted by Bales et al. (2010) of Florida parolees that showed a reduction in revocation, absconding, recidivism, and new crimes by those on EM as opposed to those without EM. The Florida researchers compared 5,000 subjects monitored with GPS to 266,000 subjects without GPS over 6 years by age, gender, and crime type: GPS monitoring was the only significant difference (NIJ, 2011). A previous

study by Nellis et al. (2013) showed that high-risk offenders and their families are generally positive about EM as a way of keeping high-risk offenders out of jail and out of trouble and as a stabilizing influence in their lives. Previous studies have also shown that situations that force high-risk offenders to take responsibility for their decisions and actions on a regular basis are more likely to be associated with a decrease in criminal behavior than others.

The findings show that EM makes the public safe because EM can provide realtime monitoring of offenders, ease prison overcrowding, and increase public safety. These findings confirm those of Cadena (2008), who found that the use of EM helps to save agency costs and reduces jail overcrowding. Padgett, Bales, and Blomberg's (2006) study was the first to examine the effect of EM on public safety and reduced likelihood of recidivism, technical violations, or absconding. The sample comprised 75, 661, moderate-to high-risk offenders and controlled for a range of known factors affecting community supervision outcomes. Padgett et al. found that the use of monitoring reduced recidivism and absconding. The Florida Department of Corrections (2006) also published statistics that showed offenders on EM are returned to prison less often than offenders who are not on EM. Demichele and Payne (2010a) also noted that some researchers considered the potential for the use of EM to have a direct effect on offender's criminal behavior. EM may not reduce instances of reoffending, but offenders may become more aware that they are likely to be caught if they violate other conditions of their supervision. The results also showed that the use of EM helped to reduce the likelihood of revocation for new offenses and the likelihood of absconding, which has been a

positive effect on public safety in Harris County. High-risk offenders in Harris County were closely monitored once they were released from jail and placed on EM within the community.

With respect to how EM affects offender's criminal behavior during the monitored period, the results included findings that the use of EM on high-risk offenders affects criminal behavior at all times, and resentment, stigmatization, family conflict, and labelling could actually worsen the probabilities that those on EM will commit crimes. Although it was noted in the literature review in Texas department of criminal justice that a household memorandum is always given to the family member to sign before an offender is released, how the device affects high-risk offenders on EM in their daily activities is not always explained to the family members. Family members are also not often clear about how EM might affect the offender's criminal behavior. EM of high-risk offenders affects not only the offenders but also those with whom they live, and high-risk offenders reported that EM caused sweeping changes in their lives, in their work, and with their families (Bales et al., 2010).

The use of EM to supervise high-risk offenders is effective in helping parole officers do their jobs. The interviews with parole officers who oversaw electronic programs with high-risk offenders revealed that some of them view EM as a tool that helps them to do their job effectively and not as a substitute for personal contact. Therefore, most high-risk offenders understand that using EM is still a better alternative than being behind bars. In other words, high-risk offenders view EM as either beneficial or harmless.

Harlow (2011), who had 19 years of experience as a parole officer in the state of Kentucky, also noted that the use of EM devices as sanctions was helpful in the management of high-risk offenders in various communities. The study also found that parole officers had a set of shared values that meant that they were committed to ensuring that high-risk offenders were monitored as they should be (Harlow, 2011a). In addition, Harlow (2011b) also noted that parole officers' had different work credos that resulted in different working practices and different ways of interacting with offenders. According to procedural justice principles, parole officers' practices were the most likely to have a positive impact upon offender's compliance and desistance (Hucklesby, 2011).

Limitations

Like any other research, this study had certain limitations during the research process. One notable limitation was that I am employed as a parole officer with the TDCJ and I supervise high-risk offenders; therefore, I could not put all bias aside. Another limitation was that the study was entirely based on interviews with retired parole officers in Harris County as opposed to present parole officers, which was the original plan of this research. There were no interviews conducted with offenders to get their views about being on EM.

The last limitation of the study was that the technical problems of equipment were not considered. A major concern of offenders and monitoring agencies alike is the malfunctioning of the GPS devices due to physical objects between the device and the officer monitoring the offender (Bales et al., 2010). When location in terms of terrain,

trees, buildings, and the like is considered, this variable is substantial in measuring the effectiveness of the GPS device.

Recommendations

For criminal justice planners to be able to identify trends in the use of EM current data are needed. Only through repeated cooperation of manufacturers and program administrators can a realistic portrayal of the use of EM be realized. If EM is going to continue to present itself as a viable alternative to incarceration, ongoing collected data must be analyzed. The policy development of the TDCJ requires accurate and timely data. Many alternatives to incarceration have failed because of limited development. EM will cycle out of the criminal justice system unless information is routinely collected and analyzed, as was done in this study.

The first recommendation is for the TDCJ to start using GPS technology for all offenders on EM instead of using RF devices on some offenders. As pointed out in this study, RF monitoring remains limited because it can only be used to monitor an offender's compliance with a preapproved curfew schedule. The GPS system, "on the other hand, allow for continuous ability to track an offender's movement and permits inclusion and exclusion zones as specified in the condition of release on the offender's certificate. In addition, GPS technology promises an improved ability to monitor high-risk offenders more effectively than RF" (Barry, 2009, p.3).

The second recommendation is for the state of Texas to not rely too much on the use of EM to supervise high-risk offenders. With the rapid development of electronic technology to supervise high-risk offenders, it could be too easy for a criminal justice

agency to implement EM, as the TDCJ has done, in the hope that it will be the perfect solution to the problems of jail overcrowding and the enormous costs of keeping an offender in prison. A community punishment combined with EM could give the public reassurance that high-risk offenders were receiving a harsh enough punishment that included restriction of liberty to protect the public. However, the use of EM to supervise the high-risk offenders can never take the place of parole officers, who still must have face-to-face contact with high-risk offenders. There is concern within the community that EM is an all-too-convenient and easy option for offenders. There is real danger that Texas could rely too heavily on the use of EM to solve the prison crisis without addressing issues to ensure that high-risk offenders will be adequately punished and rehabilitated.

The last recommendation is for agencies to recognize at the same time that the use of EM technology should be used and regulated in a proportionate manner to reduce its potential negative effects on the private and family life of the offender and concerned third parties. As Nellis (2013) observed, recent advancements in the use of EM have greatly increased the possibility of deterring the commission of certain types of offenses in the community, as offenders' illegal behavior may be prevented even if they are not behind bars. That is, offenders, while on a monitor on parole, may be safely released on parole, thus increasing their freedom. At the same time the community will be exposed to less risk than under present release procedures.

Recent developments in the use of EM that have enabled the state of Texas to protect the public showed that this type of monitoring needs to be continued. This type of

development will also be directed towards giving greater protection to crime victims and helping high-risk offenders to live normal lives by wearing this type of equipment while on parole within the community.

Implications for Social Change

Changes in technological often affect social change, as reflected in the use of EM on high-risk offenders. Electronic supervision technology is accompanied by changes in offenders' attitudes, behavior, and in the community. This social change will not only help to reflect values of inclusion, fairness, and opportunity within the TDCJ but also in the broader justice system. The most notable social change as a result of using EM is that EM allows offenders to have more contact with family members and maintain employment. EM also contributes to positive social change because EM allows offenders to spend the remainder of their sentence in the community instead of in jail. Nonetheless, reintegrating offenders into the community remains a social issue. The implication for social change in this study is that the results revealed new ways not only to reinforce the integration of offenders into the community but also to help bring the awareness of the use of EM to supervise high-risk offenders to the prominence of the criminal justice system in Texas and society in general.

Recent and continuing technology developments in the use of GPS-based EM have improved its reliability, reduced the size and weight of the equipment that offenders have to wear or carry, and driven down costs. As a result, GPS monitoring, which is gradually replacing RF monitoring, is now a viable supervision strategy for criminal justice agencies, as it offers a powerful and cost-effective method of controlling the

movement and behavior of offenders. This may then lead to helping criminal justice agencies relieving jail overcrowding, gaining compliance from difficult-to-manage high-risk offenders, and discouraging criminal behavior among even the most criminally inclined members of the criminal justice population.

There is a problem of consistency when researching the effectiveness of EM (Yeh, 2010). Only a few studies have shown that there are positive effects associated with EM and surveillance of offenders, yet these studies failed to provide an adequate comparison group. Furthermore, prior research on EM's outcomes indicated mixed results for its effectiveness in reducing the likelihood of recidivism and even weaker evidence for its effect on net-widening (Yeh, 2010). Only two studies have taken into consideration the issue of absconding, and less than a handful of "studies have addressed the effect of residence restrictions on rates of reoffending behavior" (Yeh, 2010, p. 1). The amount of empirical evidence is limited, and none concludes that EM and other surveillance technologies such as GPS are effective in reducing recidivism (offenses rates), reducing revocation rates (failing to complete parole guidelines thus resulting in a reconviction), or increasing public safety (Yeh, 2010). Crime is a symptom of social problems, and high-risk offenders commit the most notorious crimes that affect the public as a whole. Crime and the criminal justice system reflects social problems. Therefore, reducing incarceration and at the same time protect the public from criminals must be supported by a policy of rehabilitation for high-risk offenders because such treatment has been shown to suppress crime in a society. EM used with other community programs can eliminate the causes of crime and promote social rehabilitation.

Criminals who pose a physical threat to the public and who must be incarcerated comprise a small minority. However, jail is an extreme form of punishment, and the experience has the potential for creating offenders who are severely embittered and desire to exact vengeance on those who incarcerated them. Too often, offenders are less interested in rehabilitation than they are at becoming successful outside of the law.

Reflection of the Researcher

The value and effectivness of EM in the criminal justice system is still a subject of debate. That debate prompted this study, as those working in the criminal justice system want greater knowledge of the use of EM with high-risk offenders because parolees often repeat their crimes when out of sight of those monitoring their behavior. Studying the impact of EM of high-risk offenders in Texas made me more aware of the history and the current use of EM in the criminal justice system. This study also prompted in me an interest in the EM system and its application in other fields, including medicine and education.

Saunders, Thornhill, and Lewis's (2009) text was useful for the methodology and findings chapter. This researcher developed a better understanding of various research methods and eventually chose to use the qualitative method of research for this study.

Data analysis was the most interesting process, although it first appeared difficult. After I learned from research classes how the data analysis process works, the coding process became clear. Also, as a parole officer dealing with high-risk offenders on EM, I believe that the strategies used by parole officers to deal with safety concerns are normative strategies linked to managing high-risk offenders and any situations that do arise. These

strategies include engaging high-risk offenders in conversation, using humour, treating high-risk offenders with dignity and respect, being nonjudgmental, and not accusing high-risk offenders of noncompliance with the special conditions of their release. As Tyler and Huo (2002) pointed out, the above strategies correspond to procedural justice principles, suggesting that they should have a positive impact upon compliance.

As a specialized parole officer, I also believe that the monitoring equipment was reliable and that it was difficult for high-risk offenders to deceive the equipment.

However, problem sometimes arose with the equipment because it was faulty, had not been installed correctly, or signals from the equipment showed high-risk offenders as being out of places when they were not. Despite these problems, which can frustrate high-risk offenders and increase their chances of noncompliance, high-risk offenders sometimes attempted to use equipment problems as excuses for not complying and as a way of getting accumulated time violation cancelled.

Conclusion

The use of EM on high-risk offenders involves both parole officers and high-risk offenders. Offender involvement in their monitoring process plays an important role in the offender's behavior because the relationship between offenders and parole officers encourages high-risk offenders to get jobs, be with their family, and helps offenders adjust to society.

"Crime can be viewed as the symptom of social problems. Apart from the opportunist and petty thief, most crime is committed because of other factors like poverty, drugs habits, social interaction, and so on. Crime, therefore, not only affects the

offenders but also the society as a whole. Crime and criminal justice are part of a bigger picture, one that incorporates and reflects the problems within a society. It is the desire of the TDCJ to decrease incarceration of offenders and protect the public with the use of EM on high-risk offenders within the society" (Ardley, 2005, p. 65)

The use of EM changes and evolves and new devices may be developed. EM is relatively new technology in the criminal justice system. Those in the profession demand assurances that the equipment works and that EM programs are effective. This is the reason law enforcement agencies spend large sums of money to train and retain the staff that understands its use, operation, and weaknesses.

The growth of EM will continue as an alternative to incarceration. "Among state prisoners released in 30 states in 2005 –2010, about two-thirds (67.8%) of released prisoners were arrested for a new crime within 3 years, and three-quarters (76.6%) were arrested within 5 years" (Cooper, Durose and Snyder, 2014, p. 1). The TDCJ as of 2013 has more than 3,000 offenders on electronic monitor, and most of these offenders are being monitored by either active or passive GPS devices throughout the state.

Juveniles are placed on EM almost exclusively as a condition of their probation.

Adults, however, are classified as inmates being monitored as they function within or exit the criminal justice system. That EM is used with high-risk offenders continues to be alarming.

While EM initially caused some problems for agencies, the major problems have been resolved (Payne et al., 2008). Not every EM program required the offender to have a job. However, most offenders quickly realized that being gainfully employed was the

only way for them to get out of the house each day without violating a condition of the program and this has made them to be gainfully employed within the society (Payne et al., 2008). Therefore, the use of EM can be viewed as a positive move for diverting high-risk offenders from jail as seen in this study Again, jail is an extreme form of punishment that can be distressing and stressful to the already chaotic lives of offenders and their families.

If the use of EM on high-risk offenders is properly managed, it may one day positively transform control of criminals. However, implementing and expanding successful EM programs will be complicated and gradual and will require the continued support of political leaders, criminal justice officials, and the community. More studies such as the present study are also needed to evaluate the effectiveness of EM programs. Continued positive results will inform political leaders of the value of superintensive supervision for the offenders at the highest risk of committing further crimes. The social bond between high-risk offenders on EM and parole officers can mean more humanity towards high-risk offenders, that families are not separated, maintenance of employment, and less marginalization of social skills resulting from jail regime.

References

- Alladina, N. (2011). The use of electronic monitoring in the Alaska criminal justice system: A practical yet incomplete alternative to incarceration. *Alaska Law Review*, 28(1), 125-159. Retrieved from http://scholarship.law.duke.edu/
- Andrews, D. A. (2011). Reintroducing rehabilitation to corrections: Applying social science to reduce violent offending. New York, NY: Oxford University Press.
- Ardley, J. (2005). The theory, development and application of electronic monitoring in Britain. Retrieved from http://www.tm.lt/dok/LAVP/elMonitoringas/Straipsnis %20apie%20elektronini %20monitoringa%20anglijoje%20(eng).pdf
- Armstrong, G. S., & Freeman, B. C. (2011). Examining GPS monitoring alerts triggered by sex offenders: The divergence of legislative goals and practical application in community corrections. *Journal of Criminal Justice*, *39*(2), 175–182.
- Babbie, E. (2009). The practice of social research (12th ed.). Belmont, CA: Wadsworth.
- Bales, W., Mann, K., Blomberg, T., Gales, G., Barrick, K., Dhungana, K., & McManus, B. (2010). A quantitative and qualitative assessment of electronic monitoring.

 Retrieved Florida State University Criminology Center Website:from http://www.criminologycenter.fsu.edu/
- Barry, K. P. (2009). *Electronic monitoring: The future of crime control*. Retrieved from http://www.scribd.com/doc/13198103/Electronic-Monitoring-for-Criminal-Offenders#scribd
- Blackwell, B. S., Payne, B. K., & Prevost, J. (2011). Measuring electronic monitoring tools: The influence of vendor type and vendor. *American Journal of Criminal*

- Justice, 36(1), 17-28. doi:10.1007/s12103-010-9100-4
- Bottos, S. (2007). *An overview of electronic monitoring in corrections: The issues and implications*. Retrieved from http://www.csc-scc.gc.ca/
- Bulman, P. (2010). Electronic monitoring reduces recidivism. *Corrections Today*, 72, 72-73. Retrieved from http://www.aca.org/
- Burrell, W. D., & Gable, R. S. (2008). From B. F. Skinner to Spiderman to Martha Stewart: The past, present and future of electronic monitoring of offenders:

 Probation and parole. New York, NY: Haworth Press.
- Button, D. M., DeMichele, M., & Payne, B. K. (2007). Supervision with technology, not technology as supervision: Legislative patterns and implications for community corrections. Retrieved from http://citation.allacademic.com/
- Cadena, C. (2008). *Electronic monitoring of offenders may be unethical and ineffective*.

 Retrieved from http://voices.yahoo.com/
- Calderbank, L. (2012). *It's complicated: The management of electronically monitored curfews*. Retrieved from http://www.justice.gov.uk/
- Carson, E. A. (2014). *Prison in 2013*. Retrieved from http://www.bjs.gov/
- Chriss, J. J. (2007). The functions of the social bond. *Sociological Quarterly*, 48(4), 689-712.
- Cooper, A. D., Durose, M. R. & Snyder, H. N. (2014). *Recidivism of prisoners released*in 30 states in 2005: Patterns from 2005 to 2010. Retrieved from

 http://www.bjs.gov/

- Creswell, J.W. (2009a). Research design: Qualitative, quantitative, and mixed methods approach (3rd ed.). Thousand Oaks, CA: Sage.
- Dante, E. M. (2012). Tracking the Constitution: The proliferation and legality of sex offender GPS-tracking status. *Seton Hall Law Review*, 2(3),17-21. Retrieved from http://erepository.law.shu.edu/
- Deflem, M. (2008). *Sociology of law: Visions of a scholarly tradition*. Cambridge, UK: Cambridge University Press.
- DeMichele, M., & Payne, B. (2009a). Offender supervision with electronic technology community corrections resource. Retrieved from http://www.appa-net.org/
- DeMichele, M., & Payne, B. (2009b). *Using technology to monitor offenders: A*community corrections perspective. Retrieved from http://www
 .thefreelibrary.com/
- DeMichele, M., & Payne, B. (2010a). Electronic supervision and the importance of evidence-based practice. *Federal Probation*, 74(2), 32-24. Retrieved from http://www.uscourts.gov/
- DeMichele, M., & Payne, B. (2010b). Supervision of lower level sex offenders.

 *Corrections Compendium, 35(2), 6. Retrieved from Academic Source Complete database. (Accession No. 57934342)
- Drake, G. B. (2009). *Offender tracking in the United States*. Retrieved from http://www.cepprobation.org/
- Farabee, D. (2005). *Rethinking rehabilitation: Why can't we reform our criminals?*Washington, DC: American Enterprise Institute.

- Florida Department of Correction. (2006). *Global positioning and radio frequency monitoring*. Retrieved from http://www.dc.state.fl.us/
- Federman, D. D., Hann, K. E., & Rodriguez, L. L (2002). Responsible research: A system approach to protecting research participants. Washington, DC: The National Academies Press.
- Fry, R. (2010). Dealing with violations in the 21st century. *Corrections Today*, 72(10), 60. Retrieved from http://www.readperiodicals.com/
- Gable, R. S. (2009). Should manufacturers of offenders monitoring equipment be liable for design defect? Retrieved from www.jltp.edu/
- Gable, R. S., & Gable, K. R. (2007). The practical limitations and positive potential of electronic monitoring. *Corrections Compendium*, 32, 6-8. Retrieved from http://www.aca.org/
- Gies, S. Gainey, R. Cohen, M. I., Healy, E. Duplantier, D., Bekelman, A.,. . . & Hopps, M. (2012). *Monitoring high-risk sex offenders with GPS technology: An evaluation of the California supervision program.* Retrieved fromhttps://www.ncjrs.gov/
- Given, L.M. and Saumure (2008). *The Sage encyclopedia of qualitative research methods*Thousand Oaks, CA: Sage
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research.

 The Qualitative Report, 8(4), 597-606. Retrieved from http://www.nova.edu/
- Gotts, K., & Foster, M. (2006). Global positioning system (GPS) supervision of adult sex offenders. Pilot project. Retrieved from http://bos.ocgov.com/

- Harlow (2011). Electronic program reinvents Kentucky's ACA filing system.

 Corrections Today. Retrieved from http://www.thefreelibrary.com/
- Hebenton, B., & Seddon, T. (2009). From dangerousness to precaution: Managing sexual and violent offenders in an insecure and uncertain age. Retrieved from https://www.ncjrs.gov/
- Hill, G. (2010). Emphasis on prisons seems likely to be part of UN's future crime program. *Corrections Compendium*, *35*(2), 41-3. Retrieved from http://www.thefreelibrary.com/
- Hirschi, T. (1969). *On the compatibility of rational choice and social control theories of crime*. Retrieved from https://www.ncjrs.gov/
- Hirschi, T. (1969). Causes of delinquency. Berkeley, CA: University of California Press.
- Hirschi, T. & Gottfredson, M. R. (1995). Control theory and the life-course perspective.

 Studies on Crime and Crime Prevention, 4(2), 131-142. Retrieved from https://www.ncjrs.gov/
- Holder, E. (2013). Smart on crime: Reforming the criminal justice system for the 21st century. Retrieved from http://www.justice.gov/sites/default/files/ag/legacy/2013/08/12/smart-on-crime.pdf
- Hucklesby, A. (2011). The working life of electronic monitoring officers. Criminology and Criminal Justice, 11(1), 1-18. doi:10.1177/1748895810392185
- Igbal, M.U. & Lim, S. (2008). Legal and ethical implications of GPS vulnerabilities.

 Retrieved from http://www.gmat.unsw.edu.au/

- John Howard Society of Alberta. (2006). *Electronic (radio frequency) and GPS monitored community base supervision programs*. Retrieved from http://www.johnhoward.abc.ca/
- Karimu, O., & Akintayo, M. O. (2012). Understanding juvenile violence in America society. Retrieved from http://www.ijhssnet.com/journals/Vol_2_No_20_Special_Issue_October_2012/24 .pdf
- Killias, M., Gillieron, G., Kissling, I., & Villettaz, P. (2010). Community service versus electronic monitoring—what works better? *British Journal of Criminology*, *50*(6), 1155-1170. doi:10.1093/bjc/azq050
- Locke, L. F., Spirduso, W. S., & Silverman, S. J. (2007). *Proposals that work: A guide for planning dissertations and grants* (5th ed.). Thousand Oaks, CA: Sage.
- Lowenkamp C.T., Flores, A.W., Holsinger, A.M., Makarios, M.D., & Latessa, E.J. (2010). Intensive supervision programs: Does program philosophy and the principles of effective intervention matter? *Journal of Criminal Justice*, *38*(4), 368-375. doi:10.1016/j.jcrimjus.2010.04.004
- Malan, D. S., & Sussman, P. (2008). False alarm common with GPS monitoring.

 Retrieved from http://www.sdp123a.com/
- Marklund, F., & Holmberg, S. (2009) Effects of early release from prison using electronic tagging in Sweden. *Journal of Experimental Criminology*, 5(1), 41-61. doi:10.1007/s11292-008-9064-2
- Mason, M. (2010). Sample size and saturation in PhD studies using qualitative

- interviews. Oxford, UK: Oxford Blookes University.
- Mears, B. (2010). Supreme Court: sex offenders can be held indefinitely . Retrieved from http://www.cnn.com/2010/CRIME/05/17/scotus.sex.offenders/
- Miller, C. (2012). Future of corrections. Exploring the use of electronic monitoring.

 Retrieved from http://www.policyexchange.org.uk/
- National Academy of Science. (2009). *On being a scientist: A guide to responsible conduct in research* (3rd ed.). Washington, DC: The National Press.
- National Institute of Justice. (2010). *Recidivism*. Retrieved from http://www.nij.gov/
- National Institute of Justice. (2011). *Electronic monitoring reduces recidivism*. Retrieved from https://www.ncjrs.gov/
- Nellis, M. (2011). *The integration of probation and electronic monitoring A continuing challenge*. Retrieved from http://www.cepprobation.org/
- Nellis, M., Beyens, K., & Kaminski, D. (2013). *Electronically monitored punishment: International and critical perspectives.* New York, NY: Routledge
- National Institute of Justice. U.S. Department of Justice, Office of Justice Programs.

 (2011). *Electronic monitoring reduces recidivism*. Retrieved from https://www.ncjrs.gov/
- Padgett, K.G., Bales, W. D., & Bloomberg, T. G. (2006). Under surveillance: An empirical test of the effectiveness and consequences of electronic monitoring.

 Criminology & Public Policy, 5(1), 61-91. doi:10.1111/j.1745-9133.2006.00102.x
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

- Payne, B. K., DeMichele, M., & Button, D. M. (2008). *Understanding the electronic monitoring of offenders*. Retrieved from https://www.appa-net.org/
- Payne, B. K., & DeMichele, M. (2010). The role of probation and parole officers in the collaborative response to sex offenders. *Federal Probation*, 74(1), 23-27.

 Retrieved from Retrived from https://www.ncjrs.gov/
- Rabinowitz, P., & Fawcett, S. (2014). Collecting and analyzing data. *The Community tool box*. Retrieved from http://ctb.ku.edu/
- Renzema, M. (2003). Electronic monitoring's impact on reoffending. *Department of Criminal Justice and Social Work, 1,* 6-7. Retrieved from http://www.pretrial.org/
- Renzema, M., & Mayor-Wilson, E. (2005). Can electronic monitoring reduce crime for moderate to high-risk offenders? *Journal of Experimental Criminology*, 1(2), 215-237. doi:10.1007/s11292-005-1615-1
- Rollwagon, H., & Brunschot, E. G. (2012). *Tracking risk: GPS electronic monitoring and*the production of risk knowledge in different cultural context. Retrieved from

 http://isaconf.confex.com/
- Roman, J. K., Liberman, H. M., Taxy, S., & Downey, P. M (2012). *The costs and benefits*of electronic monitoring for Washington, D.C. Retrieved from

 http://www.urban.org/
- Saunders, N. K., Thornhill, A., & Lewis, P. (2009). *Research methods for business students*. Upper Saddle River, NJ: Prentice Hall.
- Schwarzenegger, A. (2005). Sexual predator punishment and control act. Retrieved from http://leginfo.legislature.ca.gov/faces/

- Sherman, L. W., & Strong, H. (2007). *Restorative justice: The evidence*. Retrieved from http://www.sas.upenn.edu/
- Sipes, L. A. (2012). Law enforcement and community correction use of GPS. Retrieved from http://media.csosa.gov/
- Skeem, J. L., Eno Louden, J., Polaschek, D., & Camp, J. (2007). Assessing relationship quality in mandated community treatment: Blending care with control.

 Psychological Assessment, 19(4), 397-410. Retrieved from http://www.ncbi.nlm.nih.gov/
- Skeem, J. L., & Manchak, S. (2008). Back to the future: From Klockars' model of effective supervision to evidence-based practice in probation. *Journal of Offender Rehabilitation*, 47(3), 220-247. Retrieved from https://www.ncjrs.gov/
- Spidell, M. C., & Cornish, T. (2010). Introduction to the special issue on supervision of sex offenders and location monitoring in the federal probation and pretrial services system. Federal Probation, 74(2), 2. Retrieved from http://www.uscourts.gov/55064323)
- Tella, R. D., & Schargrodsky, E. (2013). *Criminal recidivism after prison and electronic monitoring. Journal of Political Economy, 121*(1), 28-73. Retrieved from http://www.hbs.edu/
- Tennessee Board of Pardon and Parole (2007). Monitoring Tennesse's sex offenders using global positioning systems: A project evaluation. Retreived from http://state.tn.us/bopp/Press%20Releases/BOPP%20GPS%20Program%20Evaluation,%20April%202007.pdf

- Texas Board of Pardon and Parole ((2009). Special condition "T" (electronic monitoring). Government Code Ann 508.0441
- Texas Department of Criminal Justice Electronic Monitoring Program, Government Code
 Ann 508.315 (2010a).
- Texas Department of Criminal Justice Electronic Monitoring Program, Government Code Ann 508.315 (2010b).
- The Howard League for Penal Reform. (2015). High risk offenders. Retrieved from http://www.howardleague.org/?id=1136
- Texas Department of Criminal Justice. (2015). Super-Intensive Supervision Program (SISP)—Administrative guidelines. Retrieved from https://www.tdcj.state.tx.us/
- Thomson, P. M. (2011). A comprehensive strategy targeting recidivist criminals with continuous real-time GPS monitoring: Is reverse engineering crime control possible. Retrieved from http://www.fed-soc.org/
- Tyler, T. & Huo, T. J. (2002). Trust in law. Encouraging public cooperation with police and the courts. New York, NY: Russell Sage.
- U.S. Department of Justice. (2011). What is parole? Retrieved from http://www.justice.gov/
- U.S. Department of Justice Development Services Group. (2012). *Home*confinement/electronic monitoring literature review. Retrieved from
 http://www.ojjdp.gov/
- U.S. Department of Justice National Institute of Justice. (2012). Electronic monitoring reduces recidivism. Retrieved from http://nij.gov/

- Vollman, J. J. (2009). *Electronic monitoring of dangerous sexual offenders*. Retrieved from http://www.corrections.com/
- Wallin, P. J. & Klarich, S. D. (2014). Electronic monitoring: Alternative sentencing in California. Retreived from https://www.wklaw.com/areas-alternative-sentencing-electronic-monitoring.html
- Ward, M. (2012). Empty cells a sign of trend? Austin American Statesman. Retrieved from
 http://search.proquest.com.ezp.waldenulibrary.org/pqcentral/docview/103316987
 0/59EC3CDACF7A4EE0PQ/1?accountid=14872
- Ward, T. (2009). Dignity and human rights in correctional practice. *European Journal of Probation*, *I*(2), 110-123. doi:10.1177/206622030900100204
- Warren, C. A. B., & Karner, T.X. (2010) Discovery qualitative methods: Field research interviews and analysis (2nd ed.). New York, NY: Oxford University Press.
- Whitfield, D. (1997). Tackling the tag: The electronic monitoring of offenders.

 Winchester, UK: Waterside Press.
- Wroblewski, J. J. (2008). *Re-START: Electronic monitoring to reduce sentences and recidivism*. Retrieved from http://www.jstor.org/
- Yeh, S. S. (2010). Cost-benefit analysis of reducing crime through electronic monitoring of parolees and probationers. Retrieved from http://www.sciencedirect.com/
- Yin, R. (2003). Case study research design and methods. Thousand Oaks, CA. Sage.

Appendix A: Interview Instrument

 ${\bf Dissertation\ Topic:}\ {\it The\ Impact\ of\ Electronic\ Monitoring\ of\ High-Risk\ Offenders\ as}$

Relates to Public Safety in the State of Texas	
Retired Parole officer:	
Date of interview:	
Place of interview:	
How many years you supervised high risk offenders on EM:	
How many high risk offenders supervised per month:	
Question One:	
Answer:	
Subquestion A:	
Answer:	
Subquestion B	
Answer:	
Question Two:	
Subquestion A:	
Answer:	
Sub question B	
Answer	
Question Three:	
Answer	
Subaucation A:	

Answer:
Subquestion B
Answer
Question Four:
Answer
Subquestion A:
Answer:
Notes:

- 1) How does the use of EM help to prevent high-risk offenders from committing further crimes?
 - a. What does the use of EM to supervise high-risk offenders mean?
 - b. How important is the use of EM to supervise high-risk offenders is to the community?
- 2) How does the use of EM to supervise high- risk offenders help to keep the public safe?
 - a. What are the advantages of using this type of technology to supervise high-risk offenders?
 - b. What are the disadvantages of using this type of technology to supervise high-risk offenders?
- 3) How does EM affect offender's criminal behavior during the monitored period?
 - a. How can EM of high-risk offenders act as a force to reduce recidivism?

- b. What role does EM play to shape offenders behavior?
- 4) What is your perception about the use of EM to supervise high-risk offenders?

 The subquestion was
 - a. How effective is the use of EM to supervise high-risk offenders in Houston, Harris County?